



Workshop Manual

Fox 2004 ➤ , Gol 1995 ➤ , Gol 1999 ➤ ,
Gol 2009 ➤ , Golf 1999 ➤ ,
Kombi 1997 ➤ , Parati 1999 ➤ ,
Parati 2006 ➤ , Polo 2003 ➤ ,
Polo 2007 ➤ , Polo Sedan 2003 ➤ ,
Polo Sedan 2007 ➤ , Santana 1991 ➤ ,
Saveiro 2000 ➤ , Saveiro 2006 ➤ ,
SpaceFox 2006 ➤ , Voyage 2009 ➤

Chemicals Manual

Edition 09.2018



List of Workshop Manual Repair Groups

Repair Group

00 - Technical data



Technical information should always be available to the foremen and mechanics, because their careful and constant adherence to the instructions is essential to ensure vehicle road-worthiness and safety. In addition, the normal basic safety precautions for working on motor vehicles must, as a matter of course, be observed.



Contents

00 - Technical data	1
1 Introduction	1
2 List of Suppliers	2
2.1 3M do Brasil	2
2.2 Alba Adesivos Ind. Com. Ltda.	2
2.3 Brascola Ltda.	2
2.4 Castrol Brasil Ltda.	2
2.5 Cia Brasileira de Petróleo Ipiranga	2
2.6 Chevron Brasil S/A	2
2.7 Colauto - Adesivos e Massas Ltda.	2
2.8 Cremer S.A. Prod. Têxteis e Cirúrgicos	2
2.9 Dow Corning do Brasil Ltda.	2
2.10 Dow Automotive System	2
2.11 Du Pont S/A	2
2.12 Elf Lubrificantes do Brasil	2
2.13 Esso Brasileira de Petróleo Ltda.	2
2.14 Formiquímica Com. e Repres. de Produtos Químicos Ltda.	2
2.15 Gratec System Indústria de Produtos Químicos Ltda.	2
2.16 Henkel do Brasil Ltda.	2
2.17 Klüber Lubrification Lubrificantes Especiais Ltda.	3
2.18 Loctite Brasil Ltda.	3
2.19 Lumobrás Imp. Com. Ind. Ltda.	3
2.20 ExxonMobil do Brasil Ind. Com. Ltda.	3
2.21 Motul Synthetic Lubricants	3
2.22 Nippondenso Compressores Ltda.	3
2.23 Pentosin do Brasil Ltda.	3
2.24 Petrobras Distr. S/A	3
2.25 Promax Prod. Máximos S/A Indústria e Comércio	3
2.26 Repsol - YPF S.A. Divisão Lubrificantes Brasil	3
2.27 Quaker Chemical Industria e Comércio Ltda.	3
2.28 Shell Brasil S/A	3
2.29 Sika S/A	3
2.30 Solplás - Ind. de Plásticos Ltda.	3
2.31 Solvay Química	3
2.32 Three Bond do Brasil Ind. e Com. Ltda.	3
2.33 Total Lubrificantes Brasil Ltda.	4
2.34 Tutela Lubrificantes S/A	4
2.35 Valvoline Lubrificantes Internacionais Ltda.	4
3 List of authorized products	5
3.1 Assembly Adhesive	5
3.2 Resin adhesive	5
3.3 Polyurethane-based sealing adhesive	5
3.4 Adhesive for sealing gaskets	5
3.5 Adhesive for packings and linings	5
3.6 Polyurethane adhesive	5
3.7 Body adhesive (Polyurethane)	5
3.8 Resin adhesive	5
3.9 Sealing adhesives for engines	5
3.10 High-resistance locking adhesive	6
3.11 Low viscosity lock adhesive	6
3.12 Locking adhesive	6
3.13 Locking adhesive for mechanical seals	6
3.14 Metal-glass adhesive	6



3.15	Sealing adhesive	6
3.16	2-component adhesive	6
3.17	Universal adhesive	6
3.18	Additives for coolants - G11	6
3.19	Additives for coolants - G13	7
3.20	Activating agent for pre-laminated glass	7
3.21	Silicone rubber	7
3.22	Filling and acoustic isolation foam	7
3.23	Polyurethane adhesive tape	7
3.24	Cotton tape	7
3.25	Self-adhesive PVC tape	7
3.26	Transferable adhesive tape	7
3.27	Sealing tape	7
3.28	Double-sided adhesive tape	8
3.29	Double-sided acrylic foam adhesive tape	8
3.30	Medium density double-sided adhesive tape	8
3.31	Hydraulic brake fluid (DOT 4)	8
3.32	Automatic transmission fluid	8
3.33	Refrigerant gas - R134a	8
3.34	Multi-purpose grease	8
3.35	Semi-fluid grease	8
3.36	Multi-purpose grease	8
3.37	Lubrication paste	9
3.38	Lubricating grease	9
3.39	Complex grease	9
3.40	Graphite grease	9
3.41	Grease for front wheel cylinder support guide pin	9
3.42	Grease for gearbox side seals	9
3.43	Grease for electrical contacts	9
3.44	Polyurea grease	9
3.45	High temperature grease	9
3.46	Temperature resistant grease	10
3.47	Lubricating grease	10
3.48	Silicone based grease	10
3.49	Windscreen adhesive set	10
3.50	Lithium-based lubricant paste	10
3.51	Adhesive paste and grey sealant	10
3.52	Adhesive material for glass	10
3.53	Silicone paste	10
3.54	Mouldable paste for caulking	10
3.55	Lubricating paste for high temperatures	10
3.56	Lubricating paste for constant velocity joints	11
3.57	Sealing compound	11
3.58	Sealing compound	11
3.59	Sealing paste	11
3.60	Sealing compound	11
3.61	Sealing compound	11
3.62	Sealing compound	11
3.63	Nyogel	11
3.64	Engine lubrication oil for Petrol, Ethanol engines- VW 501 01	11
3.65	Engine lubrication oil for Petrol, Ethanol, Totalflex engines- VW 502 00	12
3.66	Engine oil lubricant for Diesel engines - VW 505 00	12
3.67	Engine oil lubricant for Diesel engines - VW 507 00	12
3.68	Engine lubricant oil for Petrol and Totalflex engines - VW 508 88	12
3.69	Engine oil lubricant for Diesel engines - VW 509 99	13
3.70	Lubricating oil for manual gearbox and steering box - SAE 90, MIL-L-2105B, API-GL5	13



3.71	Lubricating oil for manual gearbox - SAE 80, MIL-L-2105, API-GL4	13
3.72	Lubricating oil for manual gearbox - SAE 75W90	14
3.73	Oil for manual gearbox	14
3.74	Lubricating oil for manual gearbox - SAE 75W90	14
3.75	Lubricating oil for manual gearbox - SAE 75W90	14
3.76	Lubricating oil for manual gearbox - SAE 75W90	14
3.77	Lubricating oil for power steering	14
3.78	Lubricating oil for automatic gearbox and power steering	14
3.79	Lubricating oil for the automatic gearbox differential - SAE 75W90	14
3.80	VW ATF oil for power steering	15
3.81	VW ATF oil for power steering	15
3.82	Oil for gear selection mechanism	15
3.83	Oil for air conditioning compressor - R134a	15
3.84	White lubricating grease	15
3.85	Moly grease	15
3.86	Molybdenum bisulphate lubricating grease	15
3.87	Copper grease	15
3.88	Silicon grease	15
3.89	High temperature paste	15
3.90	Primer	16
3.91	Glass primer	16
3.92	Adhesive remover	16
3.93	Silicone remover	16
3.94	Corrosive paste	16
3.95	Silicone sealant	16
3.96	Cleaning solution	16
3.97	Engine leak detection spray	16
3.98	Cylinder lubricating spray	16
3.99	Silicone adhesive for sealing	16
3.100	Mixing tube	16
3.101	Liquid sealant	17
3.102	Silicone sealant for engines	17
3.103	Sealant for exhaust connections	17
4	Work Instructions for Handling Chemicals	18
4.1	General considerations	18
5	Application guide	23
5.1	Application guide	23
6	Repair Group 10 - Cylinders, cylinder block, support, protector	31
6.1	Cylinder base gasket - lubricate	31
6.2	Engine housing - seal	32
6.3	Engine housing plugs - fasten	33
6.4	Cylinder block plugs - fasten	34
7	Repair Group 13 - Crankshaft group	35
7.1	Crankshaft needle bearing	35
7.2	Needle bearing of the fastening hollow screw for the flywheel	36
7.3	Flywheel fastening screw - lock	37
8	Repair Group 15 - Cylinder head, valve gear	38
8.1	Intermediate shaft seal - lubricate for assembly	38
8.2	Camshaft valve bearing cover (1st and 5th) - Seal	39
8.3	Cylinder head sealing gasket - glue	40
8.4	Lower rear threaded pins fastening the cylinder head - rear threaded pin (crankshaft) / lower front threaded pins (flywheel) - Seal	41
8.5	Cylinder head cover - seal	42
8.6	Cylinder head cover - seal	43
8.7	Cylinder head cover - seal	44



9	Repair Group 17 - Lubrication system	45
9.1	Engine crankcase - Fill / top up oil level	45
9.2	Junction between crankcase gaskets and crankshaft front and rear flange gasket - seal	46
9.3	Engine crankcase - seal	47
10	Repair Group 19 - Cooling system	48
10.1	G11 cooling system - fill / adjust additive proportion	48
10.2	G13 cooling system - fill / adjust additive proportion	49
11	Repair Group 20 - Supply system - tank, fuel pump	50
11.1	Accelerator pedal shaft - lubricate	50
11.2	Accelerator pedal fastening - lubricate	51
11.3	Accelerator cable and cable end - accelerator pedal fastening - lubricate	52
12	Repair Group 26 - Exhaust system	53
12.1	Exhaust connection - seal	53
13	Repair Group - 28 - Ignition system, pre-ignition system	54
13.1	Ignition coils with final power stage - lubricate	54
14	Repair Group 30 - Clutch - control system	55
14.1	Clutch pedal bung - lubricate	55
14.2	Clutch control cable - lubricate	56
14.3	Clutch fork, contact with bearing - lubricate	57
14.4	Clutch fork bungs - lubricate	58
14.5	Wing nut for clutch control cable adjustment - lubricate	59
14.6	Sealing ring for the de-clutch bearing guide - lubricate for assembly	60
14.7	Clutch cable - lubricate	61
14.8	Clutch fork and clutch actuating lever - lubricate	62
14.9	Clutch pedal fastening - lubricate	63
14.10	Clutch actuating lever - lubricate	64
14.11	Input shaft splines - lubricate	65
14.12	Clutch pedal / clutch pedal bung - lubricate	66
14.13	Pedal support - seal	67
14.14	Clutch fork contact with the hydraulically activated cylinder of the gearbox clutch - lubricate	68
14.15	Fastening flange for clutch slave cylinder - seal	69
15	Repair Group - 34 - Drive, housing	70
15.1	Linkage rod, front/rear section - lubricate	70
15.2	Gear lever bearing	71
15.3	Manual gearbox - Fill / top up	72
15.4	Manual gearbox - Fill / top up level	73
15.5	Manual Gearbox - fill / top up level	74
15.6	Manual gearbox - Fill / top up	75
15.7	Manual Gearbox - fill / top up level	76
15.8	Plastic sleeves for the linkage rod coupling system / linkage rod / supports (on the gearbox) - lubricate	77
15.9	Gear lever guide plate - lubricate	78
15.10	Rubber shim for the clutch compartment cover - glue	79
15.11	Clutch compartment cover - seal	80
15.12	Linkage rod bellows for the gear lever assembly - fasten / seal	81
15.13	Junction of cases and differential cover housing (transfer box / differential) - seal	82
15.14	Gear lever handle - fasten	83
15.15	Fastening screw for the rear support of the gearbox cushion - seal	84
15.16	Gearbox cushion - lubricate	85
15.17	Gear selection mechanism - fill up	86
15.18	Electric connectors of the gear selection mechanism - apply Nyogel	87
16	Repair Group 35 - Gears and shafts	88
16.1	Input shaft splines - lubricate	88
16.2	Securing bolt of the 5th gear / synchronizing hub assembly - lock	89



17	Repair Group - 37 - Drive, housing	90
17.1	Planetary gear box (automatic gearbox) - fill / top up oil level	90
17.2	Planetary gear box (automatic gearbox) - fill / top up oil level	91
17.3	Planetary gear box (automatic gearbox) - fill / top up oil level	92
18	Repair Group - 39 - Gearbox shafts, differential	93
18.1	Gearbox side seals - lubricate	93
18.2	Planetary and satellite gears - lubricate for assembly	94
18.3	Automatic gearbox differential - top up oil level	95
18.4	Differential cover with gearbox housing - seal	96
19	Repair Group - 40 - Front suspension	97
19.1	Constant velocity joint spline - lubricate	97
19.2	Inner and outer constant velocity joint - lubricate	98
19.3	Front wheel bearing mounting - lubricate	99
19.4	Axle end - lubricate	100
20	Repair Group - 42 - Rear suspension	107
20.1	Inner and outer constant velocity joint - lubricate	107
20.2	Shaft end splines - lubricate	108
20.3	Rear torsion bar - lubricate	109
20.4	Rear wheel hub - lubricate	110
20.5	Rear wheel hub seal - lubricate	111
20.6	Rear wheel bearing - lubricate	112
21	Repair Group - 46 - Brakes - Mechanical systems	113
21.1	Rear wheel brake shoe ends - lubricate	113
21.2	Handbrake cable terminal - lubricate	114
21.3	Brake pedal safety pin - lubricate	115
21.4	Securing pin for the operating rod of the master cylinder plunger - lubricate	116
21.5	Securing pin of the handbrake lever - lubricate	117
21.6	Handbrake ratchet - lubricate	118
22	Repair Group - 47 - Brakes - Brake servo hydraulic system	119
22.1	Brake system - fill / top up	119
22.2	Guide pin for the support of the front disc brake cylinder (manufactured by Varga) - lubricate	120
22.3	Fastening screw for the front disc brake cylinder housing - lock	121
23	Repair Group - 48 - Steering	122
23.1	Power steering oil reservoir - Fill / top up oil level	122
23.2	Oil reservoir for the power steering system - fill / top up oil level	123
23.3	Steering box - Fill / top up level	124
23.4	Steering box mechanism - lubricate	125
23.5	Adapter (sleeve) for the upper steering shaft - lock	126
24	Repair Group - 53 - Body - Rear section	127
24.1	Bucket sealing membrane - glue	127
24.2	Rear side panel - protect the paint	128
25	Repair Group - 55 - Covers	129
25.1	Bucket protective cover longitudinal member - glue the finishing	129
25.2	Lower latch of the bonnet - lubricate	130
25.3	Damper eyelet for the rear cover - lubricate	131
26	Repair Group - 57 - Front doors / components / central lock	132
26.1	Front door lock - lubricate	132
26.2	Lock drive rod - lubricate	133
26.3	Noise insulation for lock operating rod - glue	134
26.4	Inner door seal - glue	135
27	Repair Group - 58 - Rear doors / components	136
27.1	Rear door lock - lubricate	136
27.2	Side door lock - lubricate	137



28	Repair Group - 64 - Windscreens, windows, window mechanism	138
28.1	Door window activation mechanism - lubricate	138
28.2	Vent window latch - lubricate	139
28.3	Front door window support - lubricate	140
28.4	Front door window activation mechanism - lubricate	141
28.5	Window crank fastening screw - lock	142
28.6	Windscreen, side window glass and rear window glass - glue	143
28.7	Windscreen, side window glass and rear window glass - seal	144
28.8	Glass - engrave chassis number	145
28.9	Front and rear door window guide groove - glue	146
28.10	Vent window - seal	147
29	Repair Group - 66 - External equipment	148
29.1	Roof rack fastening screws - lock	148
30	Repair Group - 68 - Internal equipment	149
30.1	Interior rearview mirror support - fasten	149
31	Repair Group - 70 - Lining/insulation	150
31.1	Door noise insulation - glue	150
31.2	Noise insulation on rear side panel - glue	151
31.3	Roof noise insulation - glue	152
31.4	Door sealing membrane - glue	153
32	Repair Group - 72 - Seat framework	154
32.1	Front seat central sliding guide - lubricate	154
32.2	Front seat side sliding guide - lubricate	155
33	Repair Group - 87 - Air conditioning	156
33.1	Air conditioning system - refill with gas	156
33.2	Air conditioning system - refill with oil	157
33.3	Air conditioning pressure switch - seal	158
34	Repair Group - 92 - Windscreen, rear window and headlight wiper and washer	159
34.1	Windscreen wiper operating rod - lubricate	159
35	Repair Group - 94 - Switches, lights, and external bulbs	160
35.1	Contact blade for turn signal switch	160
36	Repair Group - 97 - Cables and electrical harnesses	161
36.1	Gaskets for the plastic covers that cover the electric harnesses - seal	161



00 – Technical data

1 Introduction

(VRL012260; Edition 09.2018)

- The information in this manual also cover that mentioned in the ⇒ Electronic Replacement Parts Catalogue "ETKA".
- Some products are sold directly by the supplier, and so contacts are directed to them.



WARNING

The information contained herein is a reference for the importer, since some of the products cited in this Manual may not exist on the market.





2 List of Suppliers

2.1 3M do Brasil

<http://www.3m.com.br>

2.2 Alba Adesivos Ind. Com. Ltda.

<http://www.albaadesivos.com.br/>

2.3 Brascola Ltda.

<http://www.brascola.com.br/>

2.4 Castrol Brasil Ltda.

www.castrol.com/pt_br/brazil.html

2.5 Cia Brasileira de Petróleo Ipiranga

<http://www.ipiranga.com.br>

2.6 Chevron Brasil S/A

<https://www.chevron.com.br>

2.7 Colauto - Adesivos e Massas Ltda

<http://bra.sika.com/>

2.8 Cremer S.A. Prod. Têxteis e Cirúrgicos

<http://www.cremer.com.br>

2.9 Dow Corning do Brasil Ltda.

http://www.dowcorning.com/pt_BR

2.10 Dow Automotive System

<http://www.dow.com/brasil/>

2.11 Du Pont S/A

<http://www.dupont.com.br>

2.12 Elf Lubrificantes do Brasil

<http://www.elf.com>

2.13 Esso Brasileira de Petróleo Ltda.

<http://www.exxonmobil.com.br>

2.14 Formiquímica Com. e Repres. de Produtos Químicos Ltda

<http://formiquimica.com.br>

2.15 Gratec System Indústria de Produtos Químicos Ltda

gratec@uol.com.br

2.16 Henkel do Brasil Ltda.

<http://www.henkel.com.br/index.htm>



2.17 Klüber Lubrification Lubrificantes Especiais Ltda.

<http://www.klueber.com.br/pt/homepage/>

2.18 Loctite Brasil Ltda.

<http://www.loctite.com>

2.19 Lumobrás Imp. Com. Ind. Ltda.

<http://www.lumobras.com.br>

2.20 ExxonMobil do Brasil Ind. Com. Ltda.

<http://www.exxonmobil.com.br>

2.21 Motul Synthetic Lubricants

<https://www.motul.com.br/pt-br>

2.22 Nippondenso Compressores Ltda.

<http://www.denso.com.br/>

2.23 Pentosin do Brasil Ltda.

<http://www.pentosin.net>

2.24 Petrobras Distr. S/A

<http://www.petrobras.com.br>

2.25 Promax Prod. Máximos S/A Indústria e Comércio

<http://www.promax.com.br>

2.26 Repsol - YPF S.A. Divisão Lubrificantes Brasil

<http://www.ypf.com/brasil/Paginas/Home.aspx>

2.27 Quaker Chemical Indústria e Comércio Ltda

<http://br.quakerchem.com/>

2.28 Shell Brasil S/A

<http://www.shell.com/bra.html>

2.29 Sika S/A

<http://br.sika.com/>

2.30 Solplás - Ind. de Plásticos Ltda.

<http://www.solplas.com.br>

2.31 Solvay Química

<http://www.solvay.com/>

2.32 Three Bond do Brasil Ind. e Com. Ltda.

<http://www.threebond.com.br>



2.33 Total Lubrificantes Brasil Ltda.

<http://www.totalbr.com.br/>

2.34 Tutela Lubrificantes S/A

<http://www.tutela.com.br/>

2.35 Valvoline Lubrificantes Internacionais Ltda.

<http://www.valvoline.com.br/>





3 List of authorized products



WARNING

Observe the information in Chapter "Work Instructions for Handling Chemicals" → [page 18](#)

3.1 Assembly Adhesive

Trade Name	Packaging	Supplier
D 190 MKD A3	310 ml	VOLKSWAGEN

3.2 Resin adhesive

Trade Name	Packaging	Supplier
DA 001 730 A2	2 Kg	VOLKSWAGEN

3.3 Polyurethane-based sealing adhesive

Trade Name	Packaging	Supplier
Sikaflex 221 - white	310 ml cartridges	SIKA

3.4 Adhesive for sealing gaskets

Trade Name	Packaging	Supplier
BRASCOVED CA-149 V	85 ML TUBES	BRASCOLA
ADHESIVE FOR DIESEL ENGINE GASKETS	85 ML TUBES	BRASCOLA

3.5 Adhesive for packings and linings

Trade Name	Packaging	Supplier
D 002 100	175 g	VOLKSWAGEN

3.6 Polyurethane adhesive

Trade Name	Packaging	Supplier
D 180 KD2 A1	50 ml	VOLKSWAGEN

3.7 Body adhesive (Polyurethane)

Trade Name	Packaging	Supplier
D 180 003 M2	240 ml	VOLKSWAGEN

3.8 Resin adhesive

Trade Name	Packaging	Supplier
DA 001 730 A2	37 ML	VOLKSWAGEN

3.9 Sealing adhesives for engines

Trade Name	Packaging	Supplier
THREE BOND 1102 A	900 ML TINS	THREE BOND



3.10 High-resistance locking adhesive

Trade Name	Packaging	Supplier
LOCTITE 601	50g and 250g TUBES	LOCTITE
THREE BOND 1329	10, 50 and 250 g TUBES	THREE BOND

3.11 Low viscosity lock adhesive

Trade Name	Packaging	Supplier
LOCTITE 649	50g and 250g TUBES	LOCTITE
THREE BOND 1305	10, 50 and 250 g TUBES	THREE BOND

3.12 Locking adhesive

Trade Name	Packaging	Supplier
D 000 600 A2	18 ml	VOLKSWAGEN

3.13 Locking adhesive for mechanical seals

Trade Name	Packaging	Supplier
THREE BOND 1386 E	250 ML TUBES	THREE BOND

3.14 Metal-glass adhesive

Trade Name	Packaging	Supplier
D 000 703 A1	0.01 oz	VOLKSWAGEN

3.15 Sealing adhesive

Trade Name	Packaging	Supplier
LOCTITE 573	50 AND 250 ML TUBES	LOCTITE

3.16 2-component adhesive

Trade Name	Packaging	Supplier
THREE BOND 3941 (BLUE)	50 ML TUBES	THREE BOND
THREE BOND 3942 (RED)	50 ML TUBES	THREE BOND

3.17 Universal adhesive

Trade Name	Packaging	Supplier
D 001 200 M2	420 g	VOLKSWAGEN
D 001 210 M2	420 g	VOLKSWAGEN

3.18 Additives for coolants - G11

Trade Name	Packaging	Supplier
G 052 774 A3	1 litre	VOLKSWAGEN



3.19 Additives for coolants - G13

Trade Name	Packaging	Supplier
G 013 A8J M1	1.5 litre	VOLKSWAGEN

3.20 Activating agent for pre-laminated glass

Trade Name	Packaging	Supplier
D 181 802 M1	10 ml	VOLKSWAGEN

3.21 Silicone rubber

Trade Name	Packaging	Supplier
FLEXITE BLACK	85 g TUBES	ALBA
BRASCOVED SI-40 - BLACK	85 g TUBES	BRASCOLA
SILASTIC 732 RTV - BLACK	85 g TUBES	DOW CORNING

3.22 Filling and acoustic isolation foam

Trade Name	Packaging	Supplier
D 506 KD1 A3	200 ml	VOLKSWAGEN

3.23 Polyurethane adhesive tape

Trade Name	Packaging	Supplier
MKR 106 260 95	21 MM X 50 M ROLLS	VOLKSWAGEN

3.24 Cotton tape

Trade Name	Packaging	Supplier
TESABAND IM-PERMEÁVEL 4651 (waterproof)	19 MM X 50 M ROLLS	CREMER

3.25 Self-adhesive PVC tape

Trade Name	Packaging	Supplier
FITA 470	30 M X 19 MM ROLLS	3 M

3.26 Transferable adhesive tape

Trade Name	Packaging	Supplier
Y-0598	33 M X 16 MM ROLLS	3 M

3.27 Sealing tape

Trade Name	Packaging	Supplier
BRASCOVED 2015 L	BOX CONTAINING 10 TO 20 KG (with tapes)	BRASCOLA



3.28 Double-sided adhesive tape

Trade Name	Packaging	Supplier
V 2808	6 0 MM X 61 M ROLLS	INDACO
Y-427	6 3 MM X 10 M ROLLS	3 M

3.29 Double-sided acrylic foam adhesive tape

Trade Name	Packaging	Supplier
Y-4205	5 MM X 10 M ROLLS	3 M

3.30 Medium density double-sided adhesive tape

Trade Name	Packaging	Supplier
Y-4210 (SENSOR)	30 X 48 MM UNITS	3 M
325 /953 931 1	30 X 48 MM UNITS	VOLKSWAGEN
Y-4210 (GOL GTI ROOF SPOILER)	10 X 80 MM UNITS	3 M

3.31 Hydraulic brake fluid (DOT 4)

Trade Name	Packaging	Supplier
B 000 750 M1	0.25 litre	VOLKSWAGEN

3.32 Automatic transmission fluid

Trade Name	Packaging	Supplier
G 052 182 A2	1 litre	VOLKSWAGEN

3.33 Refrigerant gas - R134a

Trade Name	Packaging	Supplier
SUVA® 134A	750 g	DU PONT
SOLKANE® 134A		SOLVAY QUÍMICA

3.34 Multi-purpose grease

Trade Name	Packaging	Supplier
G 052 735 A2	120 g	VOLKSWAGEN

3.35 Semi-fluid grease

Trade Name	Packaging	Supplier
G 052 168 A1	10 g	VOLKSWAGEN

3.36 Multi-purpose grease

Trade Name	Packaging	Supplier
LITHOLINE EP 2 CASTROL GRAXA EPL 2		IPIRANGA CASTROL



Trade Name	Packaging	Supplier
EXXON BEACON EP-2		ESSO
LUBRAX - GMA-2		PETROBRÁS
MULTIFAK PREMI-UM EP2		CHEVRON BRASIL

3.37 Lubrication paste

Trade Name	Packaging	Supplier
G 000 450 02	90 g	VOLKSWAGEN

3.38 Lubricating grease

Trade Name	Packaging	Supplier
VARILUB 745 BR	1 KG	KLÜBER

3.39 Complex grease

Trade Name	Packaging	Supplier
MOBILPLEX 47		MOBIL

3.40 Graphite grease

Trade Name	Packaging	Supplier
ISAGRAFITE		IPIRANGA
KLÜBER ST 25/300 G-8		KLÜBER
PROFASA HD G-1		WAL

3.41 Grease for front wheel cylinder support guide pin

Trade Name	Packaging	Supplier
SYNTHESO GLK 1		KLÜBER

3.42 Grease for gearbox side seals

Trade Name	Packaging	Supplier
GRAXA VARILUB AH 70-222 BR		KLUBER

3.43 Grease for electrical contacts

Trade Name	Packaging	Supplier
UNIMOLY AC MET-ALLIC		KLUBER
MOLYKOTE HSC		LUMOBRÁS

3.44 Polyurea grease

Trade Name	Packaging	Supplier
G 052 142 A2	400 g	VOLKSWAGEN

3.45 High temperature grease

Trade Name	Packaging	Supplier
G 052 133 A2	90 g	VOLKSWAGEN



Trade Name	Packaging	Supplier
G 052 133 A3	120 g	VOLKSWAGEN

3.46 Temperature resistant grease

Trade Name	Packaging	Supplier
G 000 650	100 g	VOLKSWAGEN

3.47 Lubricating grease

Trade Name	Packaging	Supplier
G 000 100	80 g	VOLKSWAGEN

3.48 Silicone based grease

Trade Name	Packaging	Supplier
UNISILKON GLK 112 BR	1 Kg	KLÜBER

3.49 Windscreen adhesive set

Trade Name	Packaging	Supplier
D 004 660 M2	Comp. A - 207 ml and Comp. B - 193 ml	VOLKSWAGEN

3.50 Lithium-based lubricant paste

Trade Name	Packaging	Supplier
G 052 150 A2	180 g	VOLKSWAGEN

3.51 Adhesive paste and grey sealant

Trade Name	Packaging	Supplier
D 511 500 A2	290 ML	VOLKSWAGEN

3.52 Adhesive material for glass

Trade Name	Packaging	Supplier
D 169 300 M2	300 ml	VOLKSWAGEN

3.53 Silicone paste

Trade Name	Packaging	Supplier
G 000 405 A2	50 g	VOLKSWAGEN

3.54 Mouldable paste for caulking

Trade Name	Packaging	Supplier
BRASCOVED 1051	BOX WITH 20 KG (20 1-KG BAGS)	BRASCOLA
191	BOX WITH 20 KG (20 1-KG BAGS)	HENKEL

3.55 Lubricating paste for high temperatures

Trade Name	Packaging	Supplier
G 052 186 A3	140 g	VOLKSWAGEN



3.56 Lubricating paste for constant velocity joints

Trade Name	Packaging	Supplier
G 052 738 A2	120 g	VOLKSWAGEN

3.57 Sealing compound

Trade Name	Packaging	Supplier
D 154 103 A1	100 g	VOLKSWAGEN

3.58 Sealing compound

Trade Name	Packaging	Supplier
VEDANTE 245/78	85 ML TUBES	HENKEL
SQV - 337	85 ML TUBES	BRASCOLA

3.59 Sealing paste

Trade Name	Packaging	Supplier
AMV 188 200 03	100 g TUBES	VOLKSWAGEN

3.60 Sealing compound

Trade Name	Packaging	Supplier
D 454 300 A2	125 g TUBES	VOLKSWAGEN

3.61 Sealing compound

Trade Name	Packaging	Supplier
7X0 898 539	100 g TUBES	VOLKSWAGEN

3.62 Sealing compound

Trade Name	Packaging	Supplier
AMV 188 001 02 - (EA 111 - 8V engines)	100 g TUBES	VOLKSWAGEN
D 154 103 A1 - (EA 111 - 8V engines)	100 g TUBES	VOLKSWAGEN
D 188 003 A1 - (EA 111 - 16V engines)	100 g TUBES	VOLKSWAGEN

3.63 Nyogel

Trade Name	Packaging	Supplier
G 052 817 A1	10-g SACHET	VOLKSWAGEN

3.64 Engine lubrication oil for Petrol, Ethanol engines- VW 501 01

Correspondence ➤ Electronic Parts Catalogue "ETKA"

Trade Name	Packaging	Supplier
CASTROL MAGNATEC EXCLUSIVE (SAE 10W40)	1 litre 200 litres	G 052 167 A1 G 052 167 M1 VOLKSWAGEN



3.65 Engine lubrication oil for Petrol, Ethanol, Totalflex engines- VW 502 00

Correspondence ⇒ Electronic Parts Catalogue "ETKA"

Trade Name	Packaging		Supplier
MAXI PERFORMANCE VW 502 00	1 litre	G 052 167 R2	VOLKSWAGEN
CASTROL MAGNATEC PROFESSIONAL MF (SAE 5W40)	1 litre	G 052 167 A4	
	200 litres	G 052 167 M3	
CASTROL EDGE PROFESSIONAL A3 (SAE 0W30)	1 litre	G 052 167 A7	

3.66 Engine oil lubricant for Diesel engines - VW 505 00

Correspondence ⇒ Electronic Parts Catalogue "ETKA"

Trade Name	Packaging		Supplier
MAXI PERFORMANCE VW 502 00 (SAE 5W40)	1 litre	G 052 167 R2	VOLKSWAGEN
CASTROL EDGE PROFESSIONAL A3 (SAE 0W30)	1 litre	G 052 167 A7	
CASTROL MAGNATEC EXCLUSIVE (SAE 10W40)	1 litre	G 052 167 A1	
	200 litres	G 052 167 M1	
CASTROL MAGNATEC PROFESSIONAL MF (SAE 5W40)	1 litre	G 052 167 A4	
	200 litres	G 052 167 M3	

3.67 Engine oil lubricant for Diesel engines - VW 507 00

Correspondence ⇒ Electronic Parts Catalogue "ETKA"

Trade Name	Packaging		Supplier
CASTROL EDGE PROFESSIONAL LONGLIFE III (SAE 5W30)	1 litre	G 052 195 R2	VOLKSWAGEN

3.68 Engine lubricant oil for Petrol and Total- flex engines - VW 508 88

Correspondence ⇒ Electronic Parts Catalogue "ETKA"



Trade Name	Packaging	Supplier
MAXI PERFORMANCE VW 508 88 (SAE 5W40)	1 litre	G 053 553 R2
	200 litres	G 052 553 R6
CASTROL MAGNATEC PROFESSIONAL 508 88 (SAE 5W40)	1 litre	G 052 553 R2
	200 litres	G 052 167 M3

3.69 Engine oil lubricant for Diesel engines VW 509 99

Correspondence ⇒ Electronic Parts Catalogue "ETKA"

Trade Name	Packaging	Supplier
MAXI PERFORMANCE VW 508 88 (SAE 5W40)	1 litre	G 053 553 R2
	200 litres	G 052 553 R6
CASTROL MAGNATEC PROFESSIONAL 508 88 (SAE 5W40)	1 litre	G 052 553 R2
	200 litres	G 052 167 M3

3.70 Lubricating oil for manual gearbox and steering box - SAE 90, MIL-L-2105B, API-GL5

Trade Name	Packaging	Supplier
CASTROL MAX-TRON 90		CASTROL
ESSO GEAR OIL GX		ESSO
IPIRGEROL SP 90		IPIRANGA
MOBILUBE HD 90		MOBIL
LUBRAX TRM 5		PETROBRÁS
SHELL SPIRAX A 90		SHELL
MULTIGEAR EP 90		TEXACO

3.71 Lubricating oil for manual gearbox - SAE 80, MIL-L-2105, API-GL4

Trade Name	Packaging	Supplier
IPIRGEROL EP 80		IPIRANGA
CASTROL UNI-TRON 80 W		CASTROL
ESSO GEAR OIL GP 80 W		ESSO
MOBILUBE GX 80 W		MOBIL



Trade Name	Packaging	Supplier
LUBRAX TRM-4		PETROBRÁS
SHELL SPIRAX 80 W		SHELL
UNIVERSAL EP		TEXACO

3.72 Lubricating oil for manual gearbox - SAE 75W90

Trade Name	Packaging	Supplier
G 052 157 A2	0.5 litre	VOLKSWAGEN

3.73 Oil for manual gearbox

Trade Name	Packaging	Supplier
G 070 726 A2	1 litre	VOLKSWAGEN

3.74 Lubricating oil for manual gearbox - SAE 75W90

Trade Name	Packaging	Supplier
G 052 171 A2	1 litre	VOLKSWAGEN

3.75 Lubricating oil for manual gearbox - SAE 75W90

Trade Name	Packaging	Supplier
G 060 726 A2	1 litre	VOLKSWAGEN

3.76 Lubricating oil for manual gearbox - SAE 75W90

Trade Name	Packaging	Supplier
G 052 512 A2	1 litre	VOLKSWAGEN

3.77 Lubricating oil for power steering

Trade Name	Packaging	Supplier
G 004 000 M2	1 litre	VOLKSWAGEN

3.78 Lubricating oil for automatic gearbox and power steering

Trade Name	Packaging	Supplier
325 029 901 1	20 litre	VOLKSWAGEN

3.79 Lubricating oil for the automatic gearbox differential - SAE 75W90

Trade Name	Packaging	Supplier
G 052 145 S2	1 litre	VOLKSWAGEN



3.80 VW ATF oil for power steering

Trade Name	Packaging	Supplier
G 052 162 A2	1 litre	VOLKSWAGEN

3.81 VW ATF oil for power steering

Trade Name	Packaging	Supplier
G 052 990 A2	1 litre	VOLKSWAGEN

3.82 Oil for gear selection mechanism

Trade Name	Packaging	Supplier
G 052 512 S1	1 litre	VOLKSWAGEN

3.83 Oil for air conditioning compressor - R134a

Trade Name	Packaging	Supplier
G 052 154 A2	250 ml	VOLKSWAGEN

3.84 White lubricating grease

Trade Name	Packaging	Supplier
G 052 135 A1	60 g	VOLKSWAGEN

3.85 Moly grease

Trade Name	Packaging	Supplier
G 052 723 A2	50 ml	VOLKSWAGEN

3.86 Molybdenum bisulphate lubricating grease

Trade Name	Packaging	Supplier
UNIMOLY R 55/10 MOLYKOTE G PASTE		KLÜBER LUMOBRÁS

3.87 Copper grease

Trade Name	Packaging	Supplier
MOLIKOTE (r) CU-7439 PLUS		LUMOBRÁS

3.88 Silicon grease

Trade Name	Packaging	Supplier
G 052 565 A1	20 g	VOLKSWAGEN

3.89 High temperature paste

Trade Name	Packaging	Supplier
G 052 112 A3	170 g	VOLKSWAGEN



3.90 Primer

Trade Name	Packaging	Supplier
D 181 711 A1	10 ml	VOLKSWAGEN

3.91 Glass primer

Trade Name	Packaging	Supplier
D 009 200 02	10 ML	VOLKSWAGEN

3.92 Adhesive remover

Trade Name	Packaging	Supplier
D 002 000 A2	1 litre	VOLKSWAGEN

3.93 Silicone remover

Trade Name	Packaging	Supplier
LVM 020 100 A5	2.5 litres	VOLKSWAGEN

3.94 Corrosive paste

Trade Name	Packaging	Supplier
GRATECRIL ACTIVATED TLB 1012	125 g TUBES	GRATEC SISTEM

3.95 Silicone sealant

Trade Name	Packaging	Supplier
D 174 003 M2	80 ML	VOLKSWAGEN

3.96 Cleaning solution

Trade Name	Packaging	Supplier
D 009 401 04	250 ML	VOLKSWAGEN

3.97 Engine leak detection spray

Trade Name	Packaging	Supplier
G 001 800 A1	200 ML	VOLKSWAGEN

3.98 Cylinder lubricating spray

Trade Name	Packaging	Supplier
G 052 778 A2	50 ML	VOLKSWAGEN

3.99 Silicone adhesive for sealing

Trade Name	Packaging	Supplier
D 176 501 A1	50 ml	VOLKSWAGEN

3.100 Mixing tube

Trade Name	Packaging	Supplier
D 001 001	50 ml	VOLKSWAGEN



3.101 Liquid sealant

Trade Name	Packaging	Supplier
D 185 400 A3	50 ml	VOLKSWAGEN

3.102 Silicone sealant for engines

Trade Name	Packaging	Supplier
D 176 404 M2	80 ML TUBES	VOLKSWAGEN

3.103 Sealant for exhaust connections

Trade Name	Packaging	Supplier
TMX 386	3.6-LITER CANS	SOLPLÁS
UV-93	3 6-LITER CANS	BRASCOLA
AIR DRYING SEAL- ANT	3.6-LITER CANS	HENKEL





4 Work Instructions for Handling Chemicals

4.1 General considerations

4.1.1 Solvent Handling

◆ Description of the Material

Solvents and their mixtures, e.g., hydrocarbons, halogens, alcohols, esters, ketones are liquid organic substances. This Safety Information applies to all solvents and water-free cleaning products, and hardeners, primers, separators, and all preparations used as well for this purpose.

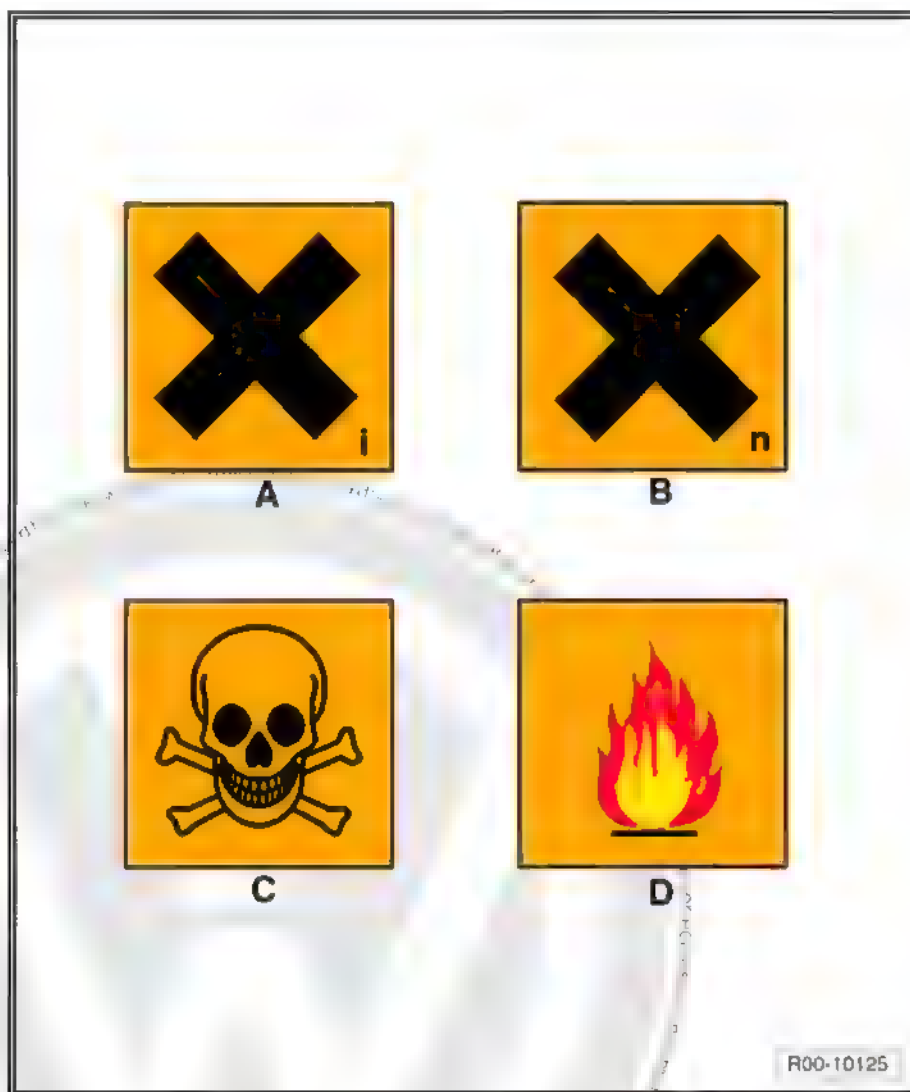
Solvents can be classified as follows:

A - Irritant

B - Noxious

C - Toxic

D - Easily flammable



◆ Applications

painting, cleaning and maintenance of parts.

◆ Storage



Solvents must be stored in closed, identified safety containers. Storing solvents in beverage bottles is strictly prohibited. Keep only a volume sufficient to carry out the work in one shift in the workplace. Volumes exceeding the daily requirement must be stored in well ventilated, explosion-proof rooms.

◆ Work

Work with solvents requires the use of exhaust fans or environments with good ventilation. Greater quantities of easily flammable or flammable materials must be handled only in explosion-proof locations. To prevent spontaneous combustion, solvents must not come into contact with highly corrosive substances (e.g. chromic acid, organic peroxides, etc.).

Thus, the following should be observed

- 1 - prevent contact with hot surfaces, alkalis, such as caustic soda, burnt lime or light metal chips.
- 2 - prevent contact with hot surfaces, alkalis, such as caustic soda, burnt lime or light metal chips.
- 3 - protect the material against sunlight.
- 4 - do not use open flames, such as welding torches.

In case of prolonged use or storage, mixtures of halogen and flammable solvents, such as cold cleaning products, classified as less flammable, may become flammable solutions, due to evaporation of the halogen component.

◆ Maintenance in confined spaces

Solvent vapours are heavier than air. Thus, they concentrate in wells and tanks. Accordingly, before starting work in these places, an "authorization for confined space" must be requested.

◆ Operational failures

Spilt solvent must be collected using appropriate absorption products. The products should be stored in closed containers with material identification and information on the content for future disposal.

◆ Protection against fire

When handling solvents, open flames, exposed lighting and smoking are prohibited. For fire extinguishers, use CO₂ and dry chemical powder.

◆ Health protection, hygiene at work

- 1 - When inhaled, most solvents have a narcotic effect and reduce ethanol tolerance. Some solvents, even in small concentrations, are noxious.
- 2 - In case of severe intoxication, remove the person to an outside or a well-ventilated location, until an ambulance arrives.
- 3 - Work uniforms heavily stained with solvent should be changed and thoroughly cleaned.
- 4 - Workers who have handled solvents and later complain about health problems should consult a doctor immediately. The doctor must be informed about the solvents handled by the worker.
- 5 - Solvents have a degreasing effect on the skin. Using solvents to clean the skin is prohibited. Should contact with the skin be inevitable, treat the skin beforehand with protective cream.
- 6 - In workplaces where solvents are used, eating, drinking and storing food, especially close to chemicals, are prohibited.



- 7 - Smoking while handling solvents is prohibited, since there is risk of fire or formation of products that cause toxic reactions in atmospheres with high hydrocarbon and halogen contents

◆ **Personal protective equipment**

In compliance with Standard 6 (NR-6) Ordinance 3214 of the Ministry of Labour, handling of solvents requires the use of personal protective equipment, such as the following:

- 1 - gloves
- 2 - safety goggles
- 3 - protective clothing

◆ **Environmental protection, waste treatment**

Solvents must not be disposed of in the sewer network. These products must be collected into proper containers, which must be closed and identified, for future disposal or recycling.

4.1.2 Work instruction - Flammable material handling

Flammable liquids are liquids, liquid mixtures or liquids with solid particles in solution or suspension (including substances classified in a different way, based on their hazardous characteristics) producing flammable vapours at temperatures up to 60.5 °C, in open vessel tests.

Flammable materials may be solid, liquid or gaseous. As they release oxygen, these materials burn and, under certain circumstances, may ignite explosively. Flammable materials cause irritations, corrosion, and noxious and toxic reactions.

In accordance with legislation, flammable materials are classified as follows:

- ◆ **Extremely flammable:** Liquid substances or mixtures, which flash point (temperature at which the substance may catch fire) is below 0 °C and boiling point is below 35 °C;

◆ **Easily flammable:**

substances or mixtures that may warm and ignite in the air at room temperature, without interference from any energy source;

substances or solid mixtures that may easily ignite after a brief contact with an ignition source and that keep burning after the source is removed;

For liquid substances, the flash point is lower than 21 °C. In contact with water or humid air, extremely flammable gases are released in dangerous volumes,

- ◆ **Flammable:** substances or liquid mixtures, the flash point of which is equal to or higher than 21 °C and lower than or equal to 55 °C.

Handling these materials requires that the following be observed

- 1 - In work and storage places, wood is not to be used for floors, desks or racks. The floor must be kept clean
- 2 - Eating, drinking, smoking, and storing food or cigarettes are prohibited at the workplace and areas close to it.
- 3 - The required personal protective equipment, such as safety goggles, gloves, and, where applicable, aprons and rubber boots, must be used
- 4 - Wet or excessively dirty clothing must be promptly changed. This clothing must not be dried. Work clothes - even those slightly dirty - must be sorted and marked with the following



warning before being sent to laundry: "CLOTHES CONTAMINATED WITH FLAMMABLE MATERIAL" These clothes must be washed in water

- 5 - Contaminated or wet personal clothes must also be washed in water at home
- 6 - Flammable materials must not come into contact with organic substances, such as oil, grease, and solvent, since there is risk of fire
- 7 - While handling flammable materials, prevent spillage and dust. In case of leaks, spilt products must not be adsorbed by sawdust or disposed of in trash cans.
- 8 - Solid flammable materials must be swept or wet with absorption products. These materials must be collected into proper containers and sent for disposal with identification of their content.
- 9 - Should flammable materials come into contact with the skin or eyes, wash them promptly with plenty of water (for at least 15 minutes). Then, consult a doctor. Inform about the product affecting the person.

4.1.3 Handling used engine oil

◆ Description of the material

Oils for four-cylinder engines comprise basically superior hydrocarbons with additives. At temperatures that can reach over 450°C at the bottom of the piston, oxidation and other chemical reactions take place. In these processes reactive products are formed, such as "polycyclic aromatic hydrocarbons".

◆ Applications

Used engine oil is produced mostly in engine test workshops after long-running operational tests. It is also produced during oil change, for example, at a customer service centre, and from vehicles undergoing durability tests. For sealing quality control, these engine oils are submitted to thermal load.

◆ Storage

Used engine oil must be collected and temporarily stored into metal containers with locks and the following warning:

"Caution. Used engine oil" Prevent contact with skin

◆ Work

Production-scale work at recovery facilities, unproductive application in used oil coagulation.

◆ Maintenance

When carrying out maintenance work, observe the following items: Operational failures - Leaks, Protection against fire, and Health protection, hygiene at work.

◆ Operational failures - Leaks

Should absorption of spilt oil be required, the spilt product must be stored in closed containers for future disposal

◆ Protection against fire

Engine oils are not classified as flammable materials, since their flash points are above 100 °C. To prevent spontaneous ignition, fire or explosion, cloths or other absorbent materials impregnated with oil must be stored in non-flammable containers with a cover.

◆ Health protection and hygiene at work



Prolonged or repetitive contact with any type of engine oil results in skin degreasing. Skin drying, irritation or inflammation may occur. In addition, used engine oils contain hazardous substances classified as "polycyclic aromatic hydrocarbons". The following work hygiene precautions should be observed:

- 1 - Before handling used engine oils, apply appropriate skin protection
- 2 - Preferentially, use warm water and soap to remove engine oil from skin.
- 3 - Solvents, cold cleaners, thinners, diesel oil should not be used for cleaning skin contaminated with engine oil.

◆ Personal protection equipment

The following equipment should be used:

- Safety goggles
- Gloves
- Aprons

◆ Environmental protection, waste treatment

Used oils are classified as liquids hazardous to water. Do not dispose of used oil in the sewer system or the soil.





5 Application guide

5.1 Application guide

Repair group - 10 - Cylinders, Cylinder block, Support, Protector

DESCRIPTION / PROCEDURE	APPLICATION
Cylinder base gasket - lubricate	1.6-litre, air-cooled engine ⇒ page 31
Air-cooled engine housing - seal	1.6-litre, air-cooled engine ⇒ page 32
Cylinder block plugs - fasten	Water-cooled engines ⇒ page 34
Cylinder block plugs - seal	1.6-litre engine ⇒ page 33

Repair group - 13 - Crankshaft group

DESCRIPTION / PROCEDURE	APPLICATION
Needle bearing of the fastening hollow screw for the flywheel - lubricate	Air-cooled engines ⇒ page 36
Crankshaft needle bearing - lubricate	Engines - 1.6 , 1.8 and 2.0 L EA 827 , 2.0 L 16 V , 1.0 , 1.4 and 1.6 L - EA 111 , 1.0 16 V - EA 111 , 1.8 and 2.0 L - EA 113 ⇒ page 35
Flywheel fastening screw - lock	Air-cooled engines ⇒ page 37

Repair group - 15 - Cylinders, Cylinder block, Support, Protector

DESCRIPTION / PROCEDURE	APPLICATION
Intermediate shaft seal - lubricate for assembly	Engines - 1.6, 1.8 and 2.0 L EA 827 ⇒ page 38
Camshaft valve bearing cover (1st and 5th) - Seal	Engines - 1.0-litre - EA 111 (Tasse) ⇒ page 39
Cylinder head sealing gasket - glue	Air-cooled engines ⇒ page 40
Lower rear threaded pins fastening the cylinder head - rear threaded pin (crankshaft) / lower front threaded pins (flywheel) - Seal	Air-cooled engines ⇒ page 41
Cylinder head cover - seal	Engines - 1.0 L - EA 111 , 1.0 16 V - EA 111 ⇒ page 44
Cylinder head cover - seal	8V engine RSH - ⇒ page 43
Cylinder head cover - seal	8 V Tasse Engine - ⇒ page 42

Repair group - 17 - Lubrication system

DESCRIPTION / PROCEDURE	APPLICATION
Engine crankcase - Fill / top up oil level	Engines - all ⇒ page 45
Engine crankcase - Fill / top up oil level	2.4 L Engine - Caravelle and Eurovan ⇒ page 45



DESCRIPTION / PROCEDURE	APPLICATION
Engine crankcase - Fill / top up oil level	2.0-litre engine - Amarok ⇒ page 45
Engine crankcase - seal	Engines - 1.6 , 1.8 and 2.0 L EA 827 , 1.0 , 1.4 and 1.6 L - EA 111 , 1.0 16 V - EA 111 , ⇒ page 47
Junction between crankcase gaskets and crankshaft front and rear flange gasket - seal	Engines - 1.6, 1.8 and 2.0 L EA 827 - UNF, UPQ, UDH, UQG - 2.0L 16 V ⇒ page 46

Repair group - 19 - Cooling system

DESCRIPTION / PROCEDURE	APPLICATION
G11 cooling system - fill / adjust additive proportion	Engines - all until 05/01/2000 ⇒ page 48
G13 cooling system - fill / adjust additive proportion	Engines - all from 05/02/2000 ⇒ page 49

Repair group - 20 - Fuel tank, fuel pump

DESCRIPTION / PROCEDURE	APPLICATION
Accelerator pedal shaft - lubricate	All (except Kombi and E-gas vehicles) ⇒ page 50
Accelerator pedal fastening - lubricate	Kombi ⇒ page 51
Accelerator cable and cable end - accelerator pedal fastening - lubricate	Kombi ⇒ page 52

Repair group - 26 - Exhaust system

DESCRIPTION / PROCEDURE	APPLICATION
Exhaust connection - seal	All ⇒ page 53

Repair group - 28 - Ignition system, pre-ignition system

DESCRIPTION / PROCEDURE	APPLICATION
Ignition coils with final power stage - lubricate	All ⇒ page 54

Repair group - 30 - Clutch - control system

DESCRIPTION / PROCEDURE	APPLICATION
Clutch pedal bung - lubricate	Gol GTI 16 V and Parati GTI 16 V ⇒ page 55
Clutch control cable - lubricate	Gol, Parati, Saveiro and Santana ⇒ page 56
Clutch fork, contact with bearing - lubricate	Gearboxes (013) ⇒ page 57
Clutch fork bungs - lubricate	Gearboxes (013) ⇒ page 58
Wing nut for clutch control cable adjustment - lubricate	Gearbox (081) ⇒ page 59
Sealing ring for the clutch bearing guide - lubricate for assembly	Gearboxes (02T) ⇒ page 60
Clutch cable - lubricate	Kombi ⇒ page 61



DESCRIPTION / PROCEDURE	APPLICATION
Clutch fork and clutch actuating lever - lubricate	Gearbox (081) ➤ page 62
Clutch pedal fastening - lubricate	Kombi ➤ page 63
Clutch actuating lever - lubricate	Gearbox (081) ➤ page 64
Input shaft splines - lubricate	Gearboxes (013) 1.0, 1.6, 1.8 and 2.0 L ➤ page 65
Clutch pedal / clutch pedal bung	All (except Kombi) ➤ page 66
Pedal support - seal	Gol, Parati, and Saveiro - 98 ➤ page 67
Clutch fork contact with the hydraulically activated cylinder of the gearbox clutch - lubricate	Gearbox - CNX ➤ page 68
Fastening flange for clutch slave cylinder - seal	Gearbox - CNX ➤ page 69

Repair group 34 - Drive, housing

DESCRIPTION / PROCEDURE	APPLICATION
Linkage rod, front/rear section - lubricate	Kombi ➤ page 70
Gear lever bearing - lubricate	All (except Kombi) ➤ page 71
Manual gearbox - Fill / top up	Gearbox - CNX ➤ page 72
Manual gearbox - Fill / top up level	Gearboxes (013) 1.0, 1.6, 1.8 and 2.0 L ➤ page 73
Manual gearbox - Fill / top up level	Gearbox (02T - MQ250) ➤ page 74
Manual gearbox - Fill / top up level	Gearbox (02T - MQ200) ➤ page 75
Manual gearbox - Fill / top up level	Gearbox (081) Kombi ➤ page 76
Plastic sleeves for the linkage rod coupling system / linkage rod supports (on the gearbox)	Gol, Parati, Saveiro and Santana ➤ page 77
Gear lever guide plate - lubricate	Kombi ➤ page 78
Rubber shirn for the clutch compartment cover - glue	Gol, Parati, Saveiro and Santana ➤ page 79
Clutch compartment cover - seal	Gol, Parati, Saveiro and Santana ➤ page 80
Linkage rod bellows for the gear lever assembly - fasten / seal	Gol, Parati, Saveiro and Santana ➤ page 81
Housing junction (transfer box / differential) and differential cover housing - seal	Gearbox - CNX ➤ page 82
Gear lever handle - fasten	Gol, Parati, Saveiro and Santana ➤ page 83
Gearbox cushion - lubricate	Polo and Fox manual gearbox ➤ page 85
Fastening screw for the rear support of the gearbox cushion - seal	Gearboxes (013) 1.0, 1.6, 1.8 and 2.0 L ➤ page 84



DESCRIPTION / PROCEDURE	APPLICATION
Gear selection mechanism - fill up	Automated gearboxes (SQ200) ➔ page 86
Electric connectors of the gear selection mechanism - apply nyogel	Automated gearboxes (SQ200) ➔ page 87

Repair group - 35 - Gears and shafts

DESCRIPTION / PROCEDURE	APPLICATION
Input shaft splines - lubricate	Gearbox - 081 ➔ page 88
Securing bolt of the 5th gear / synchronizing hub assembly - lock	Gearboxes (013) 1.0, 1.6 , 1.8 and 2.0 L ➔ page 89

Repair group - 37 - Drive, housing

DESCRIPTION / PROCEDURE	APPLICATION
Planetary gear box (automatic gearbox) - Fill / top up oil level	Gearbox - 01M ➔ page 90
Planetary gear box (automatic gearbox) - Fill / top up oil level	Gearbox - 09A ➔ page 91
Planetary gear box (automatic gearbox) - Fill / top up oil level	Gearbox - 09G ➔ page 92

Repair group - 39 - Gearbox shafts, differential

DESCRIPTION / PROCEDURE	APPLICATION
Gearbox side seals - lubricate	Gearboxes (013 and 081) ➔ page 93
Planetary and satellite gears - lubricate for assembly	Gearbox (081) ➔ page 94
Automatic gearbox differential - top up oil level	Gearbox (01M) ➔ page 95
Differential cover with gearbox housing - seal	Gearboxes (013) 1.0, 1.6 , 1.8 and 2.0 L ➔ page 96

Repair group - 40 - Front suspension

DESCRIPTION / PROCEDURE	APPLICATION
Constant velocity joint spline - lubricate	Gol, Parati, Saveiro and Santana ➔ page 97
Inner and outer constant velocity joint - lubricate	Gol, Parati, Saveiro and Santana ➔ page 98
Front wheel bearing mounting - lubricate	Gol, Parati, Saveiro and Santana ➔ page 99
Axle end - lubricate	Kombi ➔ page 100
King pin bearing - lubricate	Kombi ➔ page 102
Front axle beam - lubricate	Kombi ➔ page 103
Suspension arms - lubricate	Kombi ➔ page 104
Front wheel bearing - lubricate	Kombi ➔ page 105



DESCRIPTION / PROCEDURE	APPLICATION
Passage hole for the speedometer cable in the wheel hub protector - seal	Kombi ➤ page 106

Repair group - 42 - Rear suspension

DESCRIPTION / PROCEDURE	APPLICATION
Inner and outer constant velocity joint - lubricate	Kombi ➤ page 98
Shaft and splines - lubricate	Kombi ➤ page 108
Rear torsion bar - lubricate	Kombi ➤ page 109
Rear wheel hub - lubricate	Kombi ➤ page 110
Rear wheel hub seal - lubricate	Kombi ➤ page 111
Rear wheel bearing - lubricate	Kombi ➤ page 112

Repair group - 46 - Brakes - Mechanical systems

DESCRIPTION / PROCEDURE	APPLICATION
Rear wheel brake shoe ends - lubricate	Gol, Parati, Saveiro, Santana and Kombi ➤ page 113
Handbrake cable terminal - lubricate	Gol, Parati, Saveiro and Santana ➤ page 114
Brake pedal safety pin - lubricate	Gol, Parati, Saveiro and Santana ➤ page 115
Securing pin for the operating rod of the master cylinder plunger - lubricate	Kombi ➤ page 117
Securing pin of the handbrake lever - lubricate	Gol, Parati, Saveiro and Santana ➤ page 117
Handbrake ratchet - lubricate	Kombi ➤ page 118

Repair group - 47 - Brakes - Brake servo hydraulic system

DESCRIPTION / PROCEDURE	APPLICATION
Brake system - fill / top up	All ➤ page 119
Guide pin for the support of the front disc brake cylinder (manufactured by Varga) - lubricate	Gol, Parati, Saveiro and Santana ➤ page 120
Fastening screw for the front disc brake cylinder housing - lock	Gol, Parati, Saveiro and Santana with Vargas brake system ➤ page 121

Repair group - 48 - Steering

DESCRIPTION / PROCEDURE	APPLICATION
Power steering oil reservoir - Fill / top up oil level	Santana, Gol, Parati, Saveiro, Polo and Fox. ➤ page 122
Oil reservoir for the power steering system - Fill / top up oil level	Santana, Golf, Passat, Polo Classic, Fox, Polo and Saveiro ➤ page 123
Steering box - Fill / top up oil level	Kombi ➤ page 124



DESCRIPTION / PROCEDURE	APPLICATION
Steering box mechanism - lubricate	Gol, Parati, Saveiro (Generation II, III and IV) and Santana ➤ page 125
Adapter (sleeve) for the upper steering shaft - lock	Gol, Parati, Saveiro and Santana ➤ page 126

Repair group - 53 - Body - Rear section

DESCRIPTION / PROCEDURE	APPLICATION
Bucket sealing membrane - glue	Saveiro Generation II, III and IV ➤ page 127
Rear side panel - protect the paint	Saveiro Generation II, III and IV ➤ page 128

Repair group - 55 - Covers, Protector

DESCRIPTION / PROCEDURE	APPLICATION
Bucket protective cover longitudinal member - glue the finishing	Saveiro ➤ page 129
Lower latch of the bonnet - lubricate	Gol, Parati, Saveiro and Santana ➤ page 130
Damper eyelet for the rear and front lid	All ➤ page 131
Tailgate buffer - lubricate	Saveiro 2013 ➤ page 9

Repair group - 57 - Front doors / components / central lock

DESCRIPTION / PROCEDURE	APPLICATION
Front door lock - lubricate	Gol, Parati, Saveiro and Santana ➤ page 132
Lock drive rod - lubricate	Kombi ➤ page 133
Noise insulation for lock operating rod - glue	All (except vehicles with cable operation) ➤ page 134
Inner door seal - glue	Kombi ➤ page 135

Repair group - 58 - Rear doors / components

DESCRIPTION / PROCEDURE	APPLICATION
Rear door lock - lubricate	Gol, Parati, Saveiro and Santana ➤ page 136
Side door lock - lubricate	Kombi ➤ page 137

Repair group - 64 - Windscreens, windows, window mechanisms

DESCRIPTION / PROCEDURE	APPLICATION
Door window activation mechanism - lubricate	Gol, Parati, Saveiro and Santana ➤ page 138
Vent window - seal	Kombi ➤ page 147
Vent window latch - lubricate	Kombi ➤ page 139
Front door window support - lubricate	Kombi ➤ page 140
Front door window activation mechanism - lubricate	Kombi ➤ page 140



DESCRIPTION / PROCEDURE	APPLICATION
Window crank fastening screw - lock	All (fastened with screw) ➤ page 141
Windscreen, side window glass and rear window glass - glue	All (except windows with finishing) ➤ page 143
Windscreen, side window glass and rear window glass - seal	All (except glued windows) ➤ page 144
Glass - engrave chassis number	All ➤ page 145
Front and rear door window guide groove - glue	Kombi ➤ page 146

Repair group - 66 - External equipment

DESCRIPTION / PROCEDURE	APPLICATION
Roof rack fastening screws - lock	Santana, Quantum and Parati ➤ page 148

Repair group - 68 - Internal equipment

DESCRIPTION / PROCEDURE	APPLICATION
Interior rearview mirror support - fasten	Santana ➤ page 149

Repair group - 70 - Lining/insulation

DESCRIPTION / PROCEDURE	APPLICATION
Door noise insulation - glue	All ➤ page 150
Noise insulation on rear side panel - glue	All ➤ page 151
Roof noise insulation - glue	All ➤ page 152
Door sealing membrane - glue	All ➤ page 153

Repair group - 72 - Seat framework

DESCRIPTION / PROCEDURE	APPLICATION
Front seat central sliding guide - lubricate	Gol, Parati, Saveiro and Santana ➤ page 154
Front seat side sliding guides - lubricate	Gol, Parati, Saveiro and Santana ➤ page 155

Repair group - 87 - Air conditioning

DESCRIPTION / PROCEDURE	APPLICATION
Air conditioning system - refill with gas	All ➤ page 156
Air conditioning system - refill with oil	All ➤ page 157
Air conditioning pressure switch - seal	Gol, Parati, Saveiro and Santana ➤ page 158



Repair group - 90 - Instrument case, indicators

DESCRIPTION / PROCEDURE	APPLICATION
Windscreen ultrasound sensor - fasten	Santana (► 12.01), Gol and Parati (► 04.99)

Repair group - 92 - Windscreen, rear window and headlight wiper and washer

DESCRIPTION / PROCEDURE	APPLICATION
Windscreen wiper operating rod - lubricate	Kombi ⇒ page 159

Repair group - 94 - Switches, lights, and external bulbs

DESCRIPTION / PROCEDURE	APPLICATION
Contact blade for turn signal switch - lubricate	All ⇒ page 160

Repair group - 97 - Cables and electric harnesses

DESCRIPTION / PROCEDURE	APPLICATION
Gaskets for the plastic covers that cover the electric harnesses - seal	All ⇒ page 161



Repair Group 10 - Cylinders, cylinder block, support, protector



WARNING

Check the regulations on the disposal of each product and packaging as per manufacturer's guidelines and current legislation at local, state and federal level.

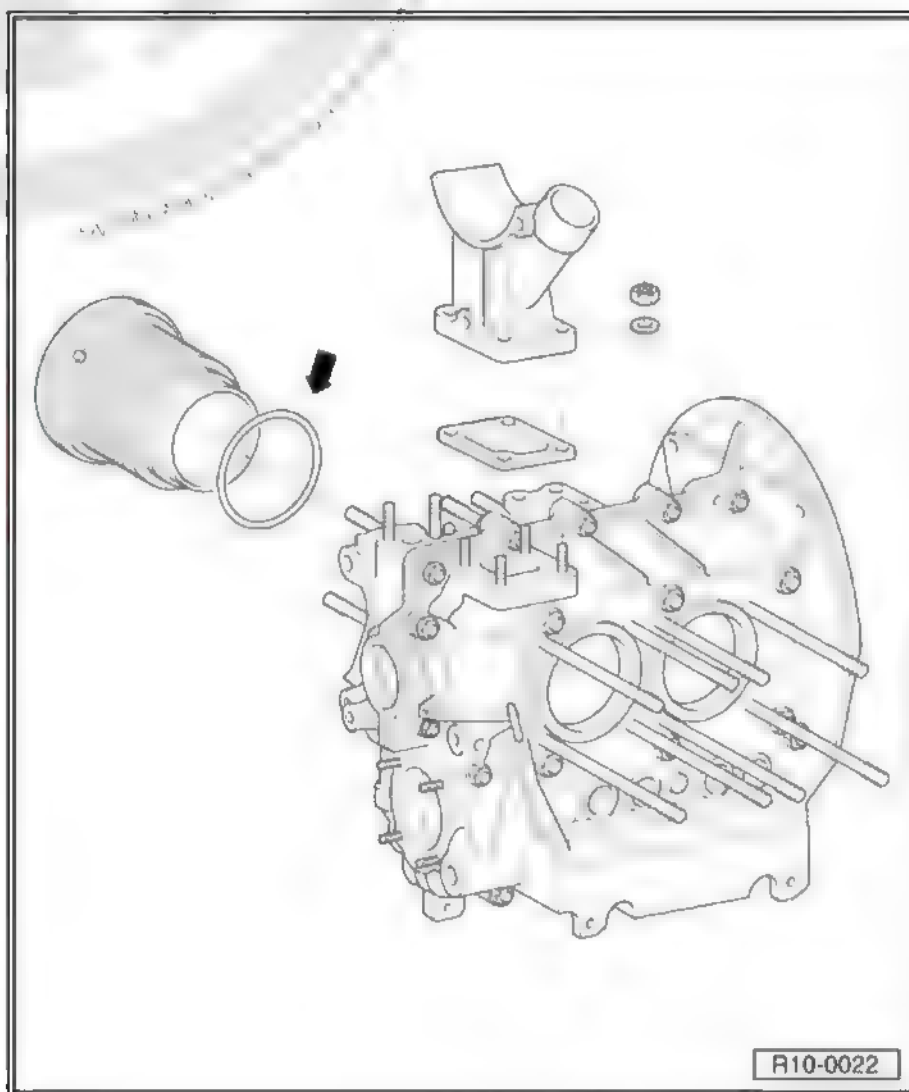
Observe the information contained in Chapter "Work Instructions for the Handling of Chemicals" ➔ [page 18](#).

6.1 Cylinder base gasket - lubricate

• Air-cooled engines

- Product used

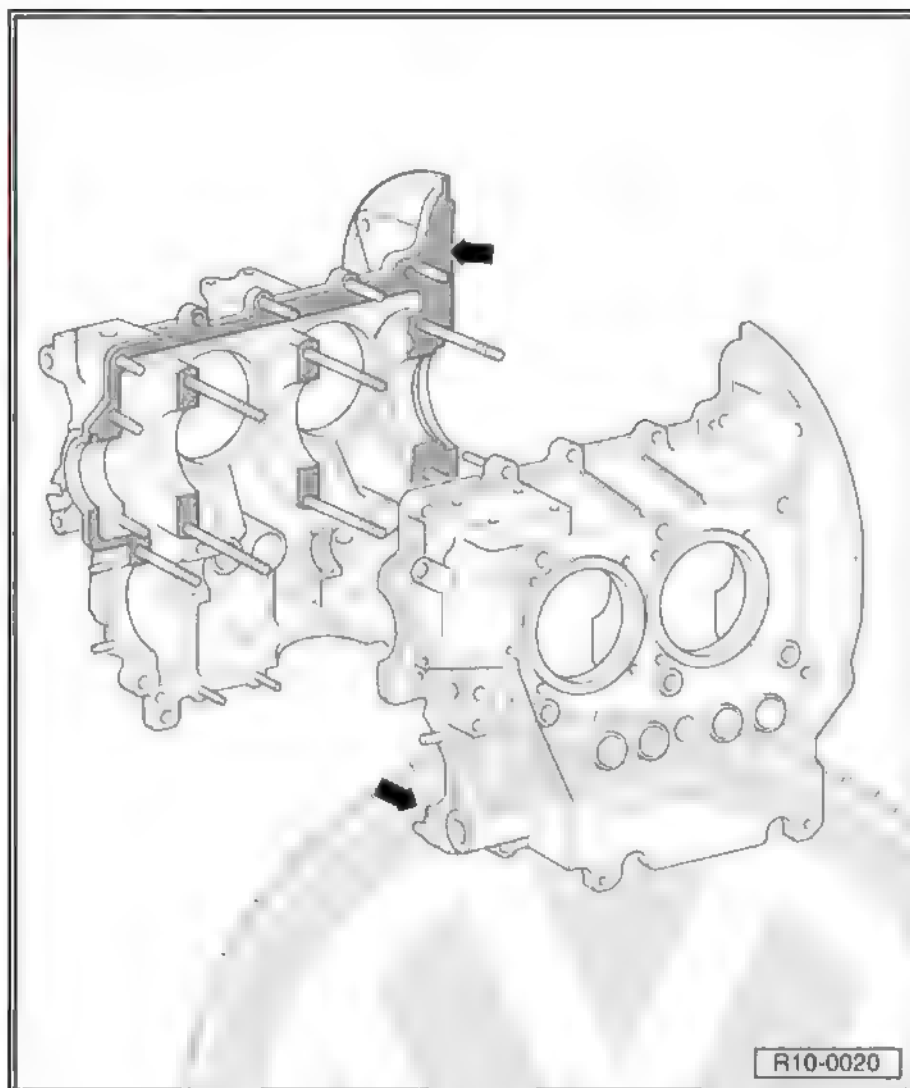
- Multi-purpose grease
➔ [page 8](#)





6.2 Engine housing - seal

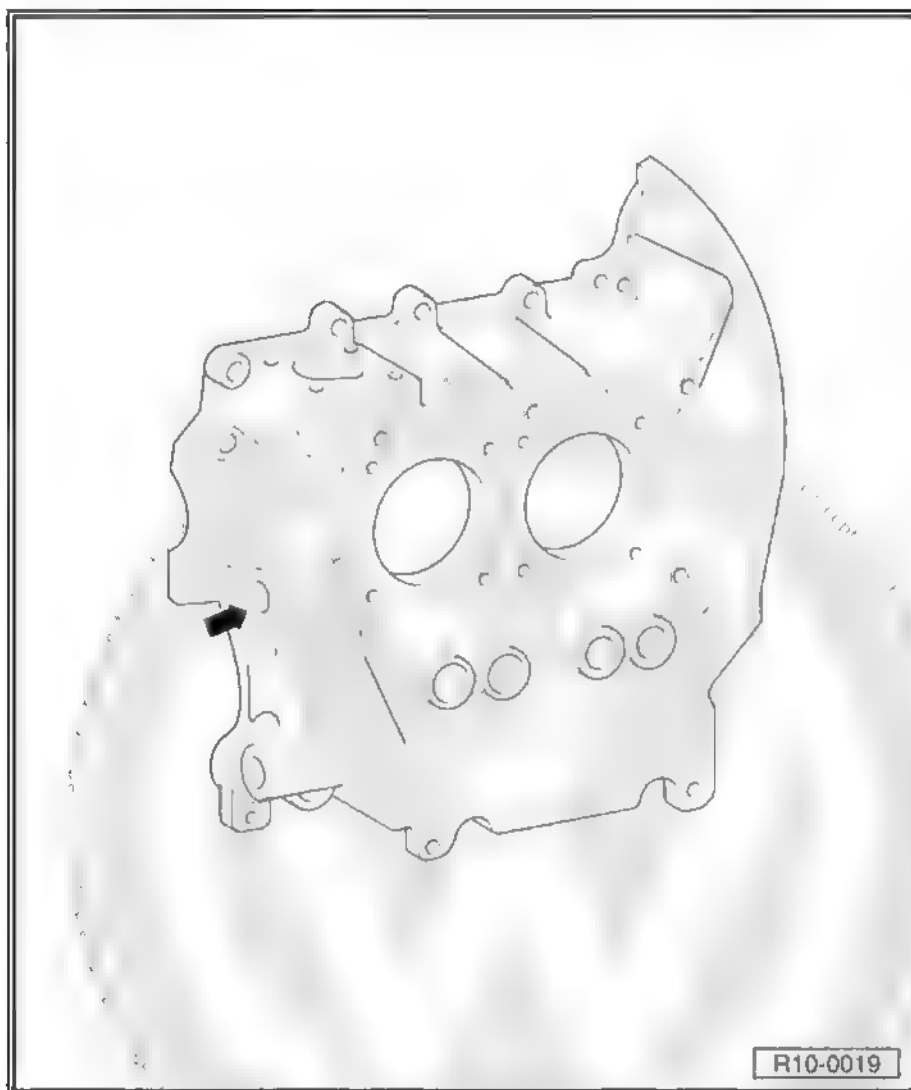
- Air-cooled engines
- Product used
- Sealing adhesive ➔ [page 6](#)





6.3 Engine housing plugs - fasten

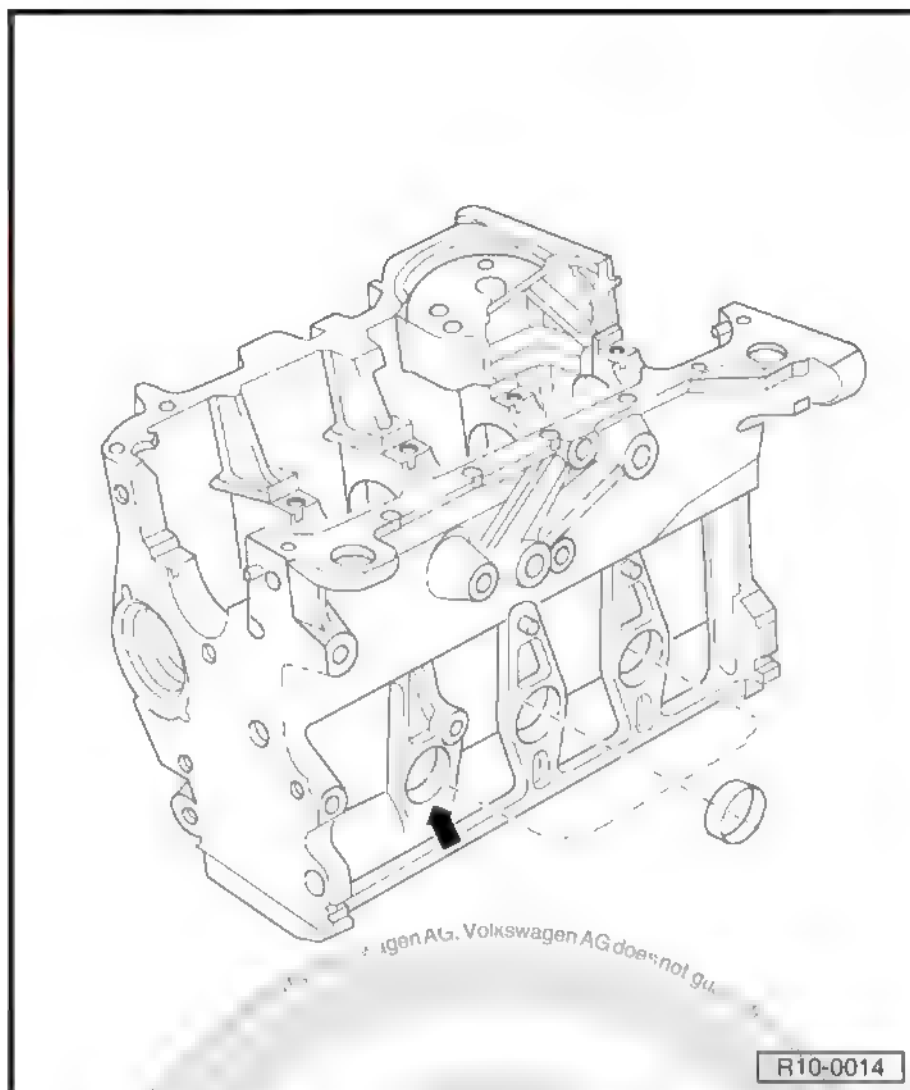
- Air-cooled engines
- Product used
- Medium torque locking adhesive





6.4 Cylinder block plugs - fasten

- Water-cooled engines
- Product used
- Locking adhesive for mechanical seal → [page 6](#)





7 Repair Group 13 - Crankshaft group



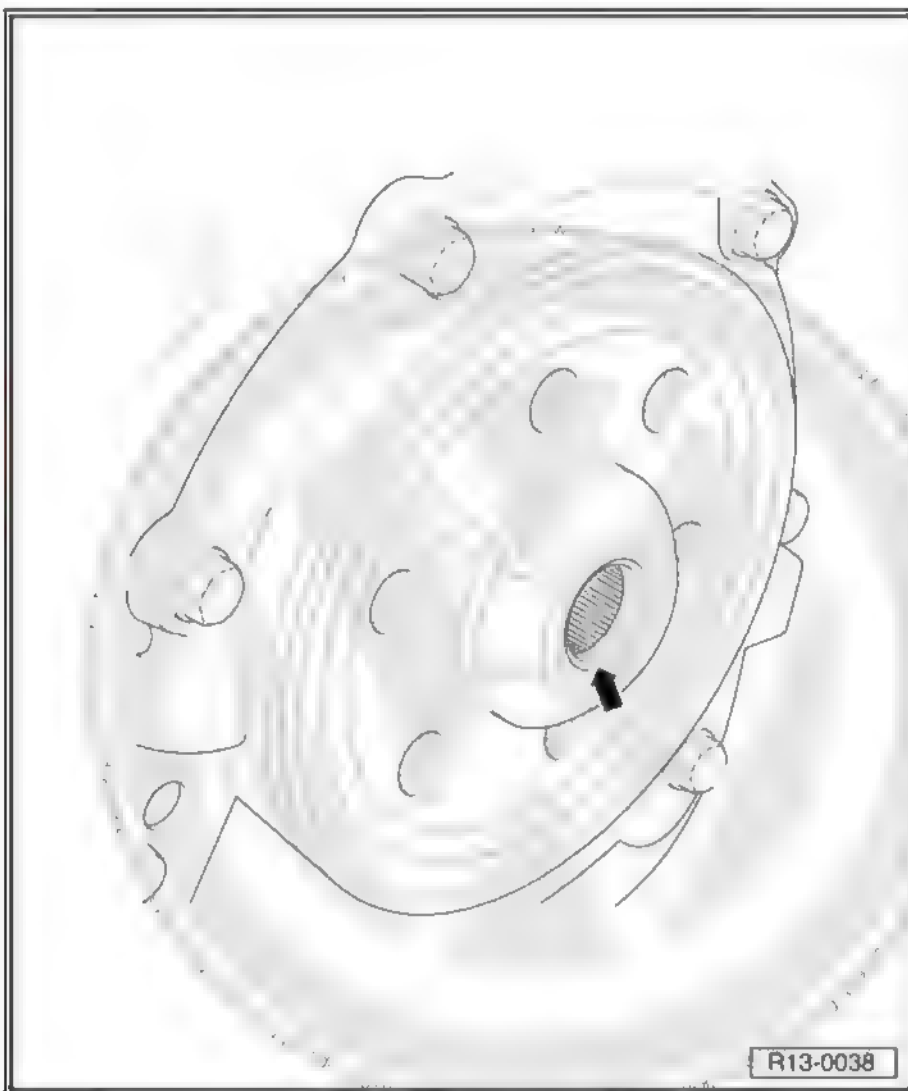
WARNING

Check the regulations on the disposal of each product and packaging as per manufacturer's guidelines and current legislation at local, state and federal level.

Observe the information in Chapter "Work Instructions for Handling Chemicals" ➔ [page 18](#)

7.1 Crankshaft needle bearing

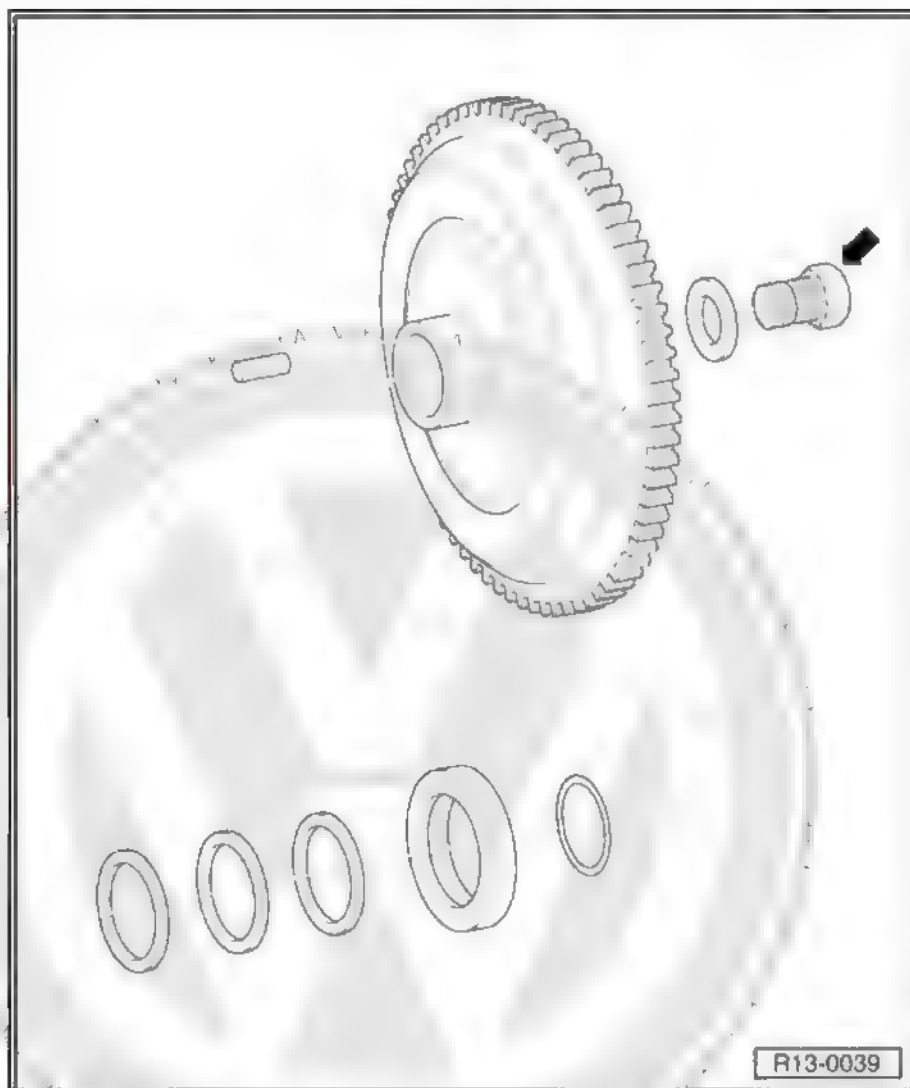
- All, except automatic gearbox
- Product used
- Multi-purpose grease
➔ [page 8](#)





7.2 Needle bearing of the fastening hollow screw for the flywheel

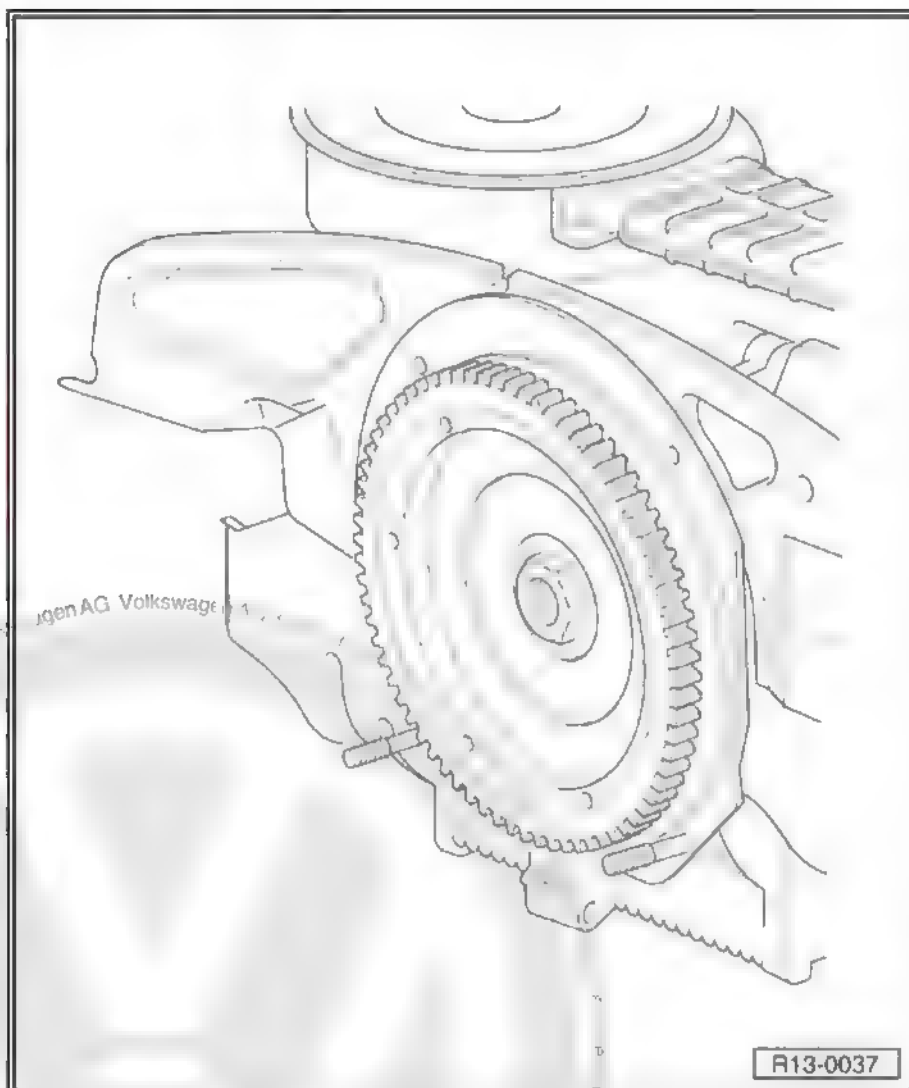
- Air-cooled engines
 - Product used
 - Multi-purpose grease
- ➔ [page 8](#)





7.3 Flywheel fastening screw - lock

- All
- Product used
- Low viscosity lock adhesive
→ [page 6](#)





8 Repair Group 15 - Cylinder head, valve gear



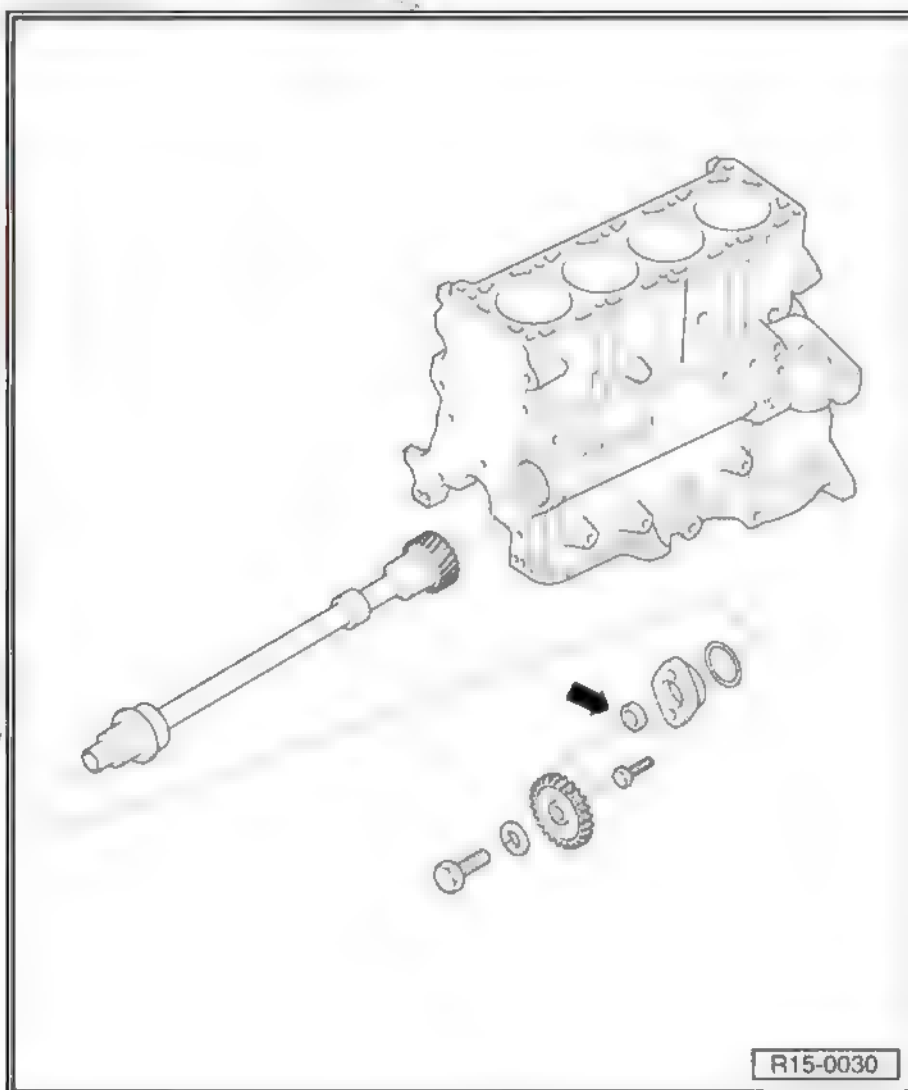
WARNING

Check the regulations on the disposal of each product and packaging as per manufacturer's guidelines and current legislation at local, state and federal level.

Observe the information in Chapter "Work Instructions for Handling Chemicals" ⇒ [page 18](#)

8.1 Intermediate shaft seal - lubricate for assembly

- AP engines, 1.6, 1.8 and 2.0
- Product used
- Lubricating paste for constant velocity joints ⇒ [page 11](#)

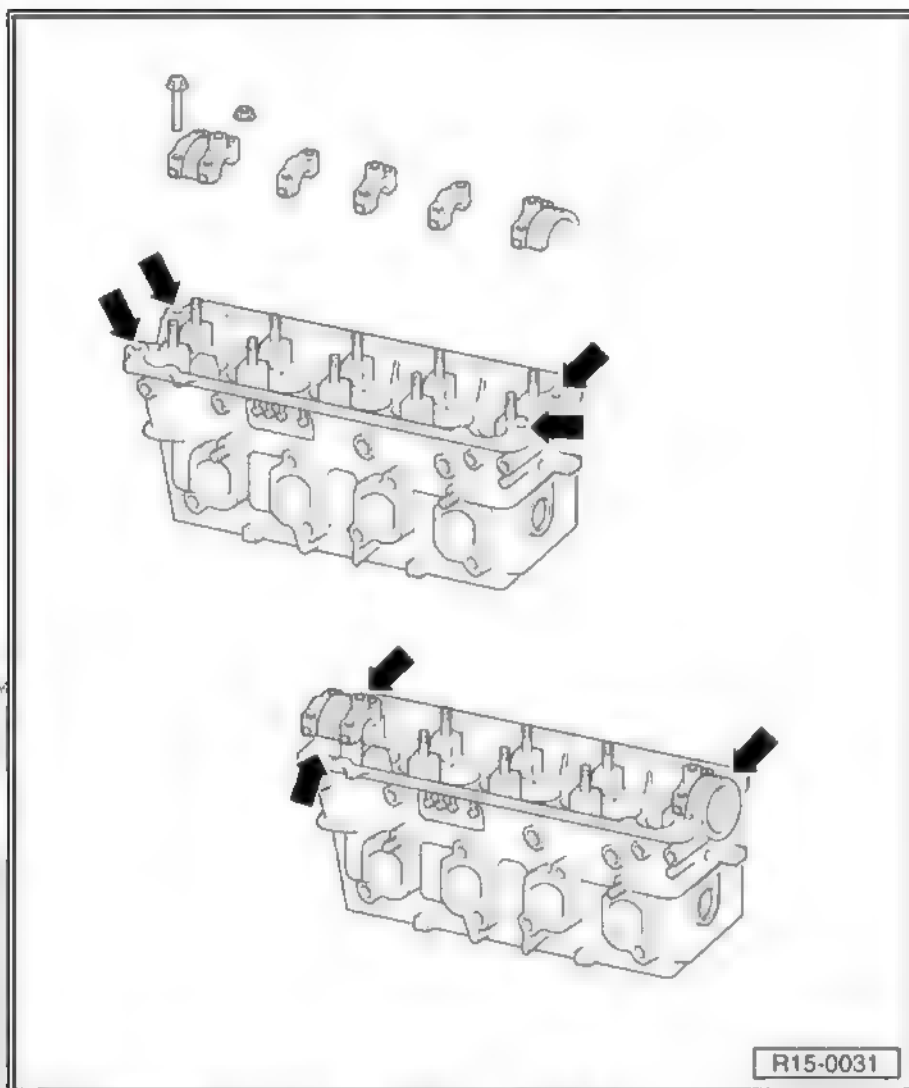


R15-0030



8.2 Camshaft valve bearing cover (1st and 5th) - Seal

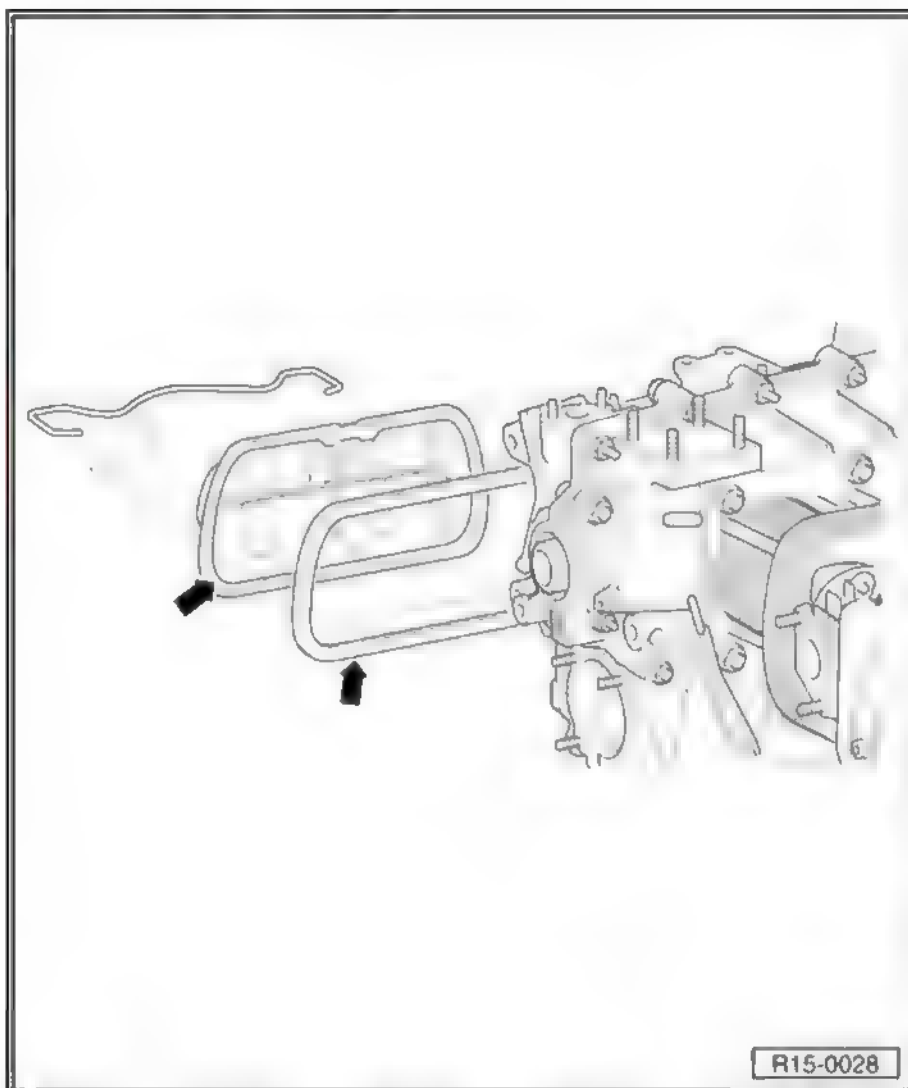
- AT engines, except RSH
- Product used
- Sealing compound for engines → [page 11](#)





8.3 Cylinder head sealing gasket - glue

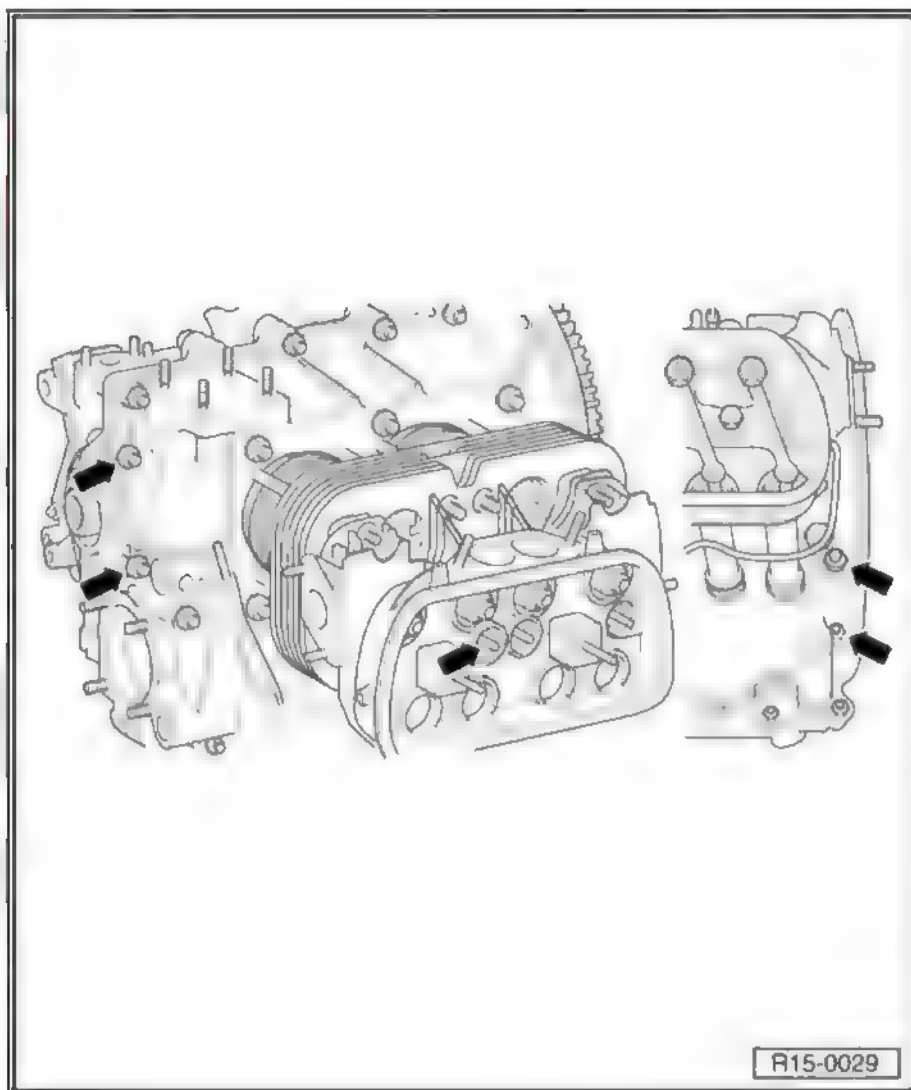
- Air-cooled engines
- Product used
- Sealing gasket adhesive
→ [page 5](#)





8.4 Lower rear threaded pins fastening the cylinder head - rear threaded pin (crankshaft) / lower front threaded pins (flywheel) - Seal

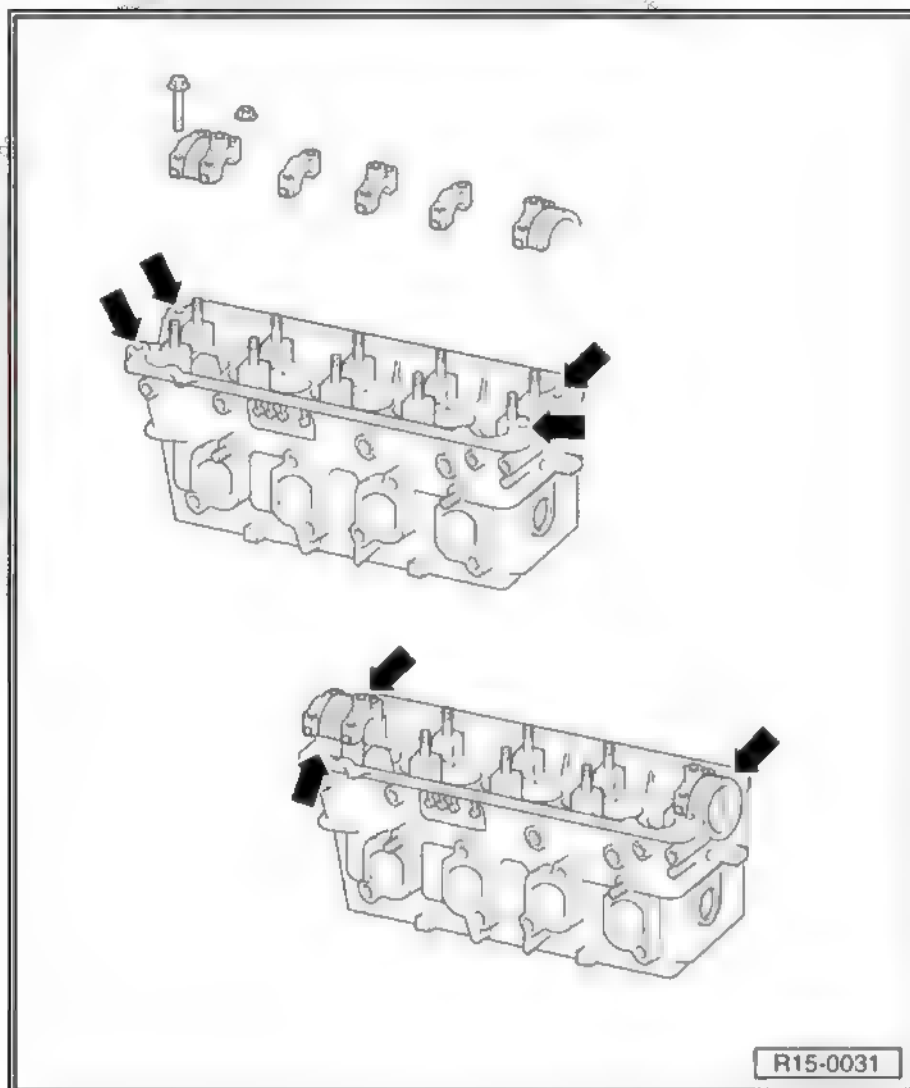
- Air-cooled engines
- Product used
- Sealing adhesive → [page 6](#)





8.5 Cylinder head cover - seal

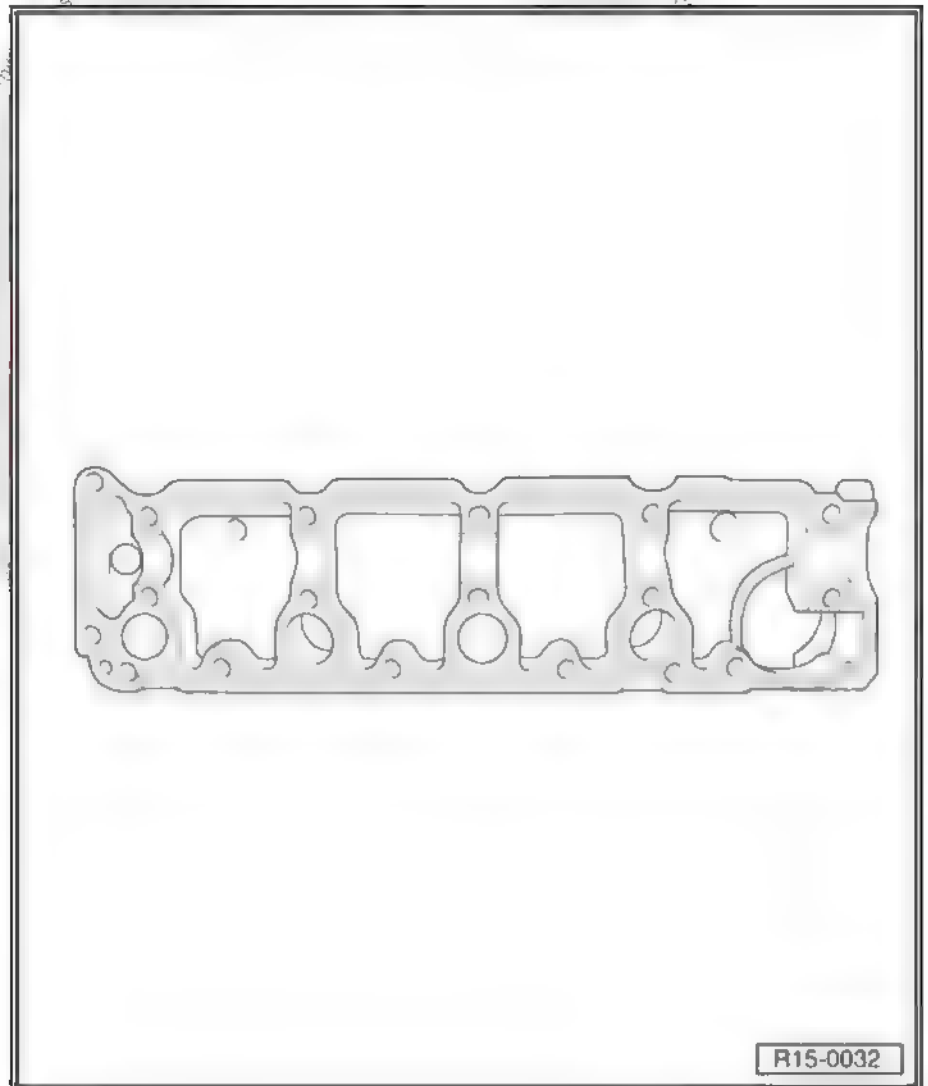
- AT engines, except RSH
- Product used
- Sealing compound for engines → [page 11](#)





8.6 Cylinder head cover - seal

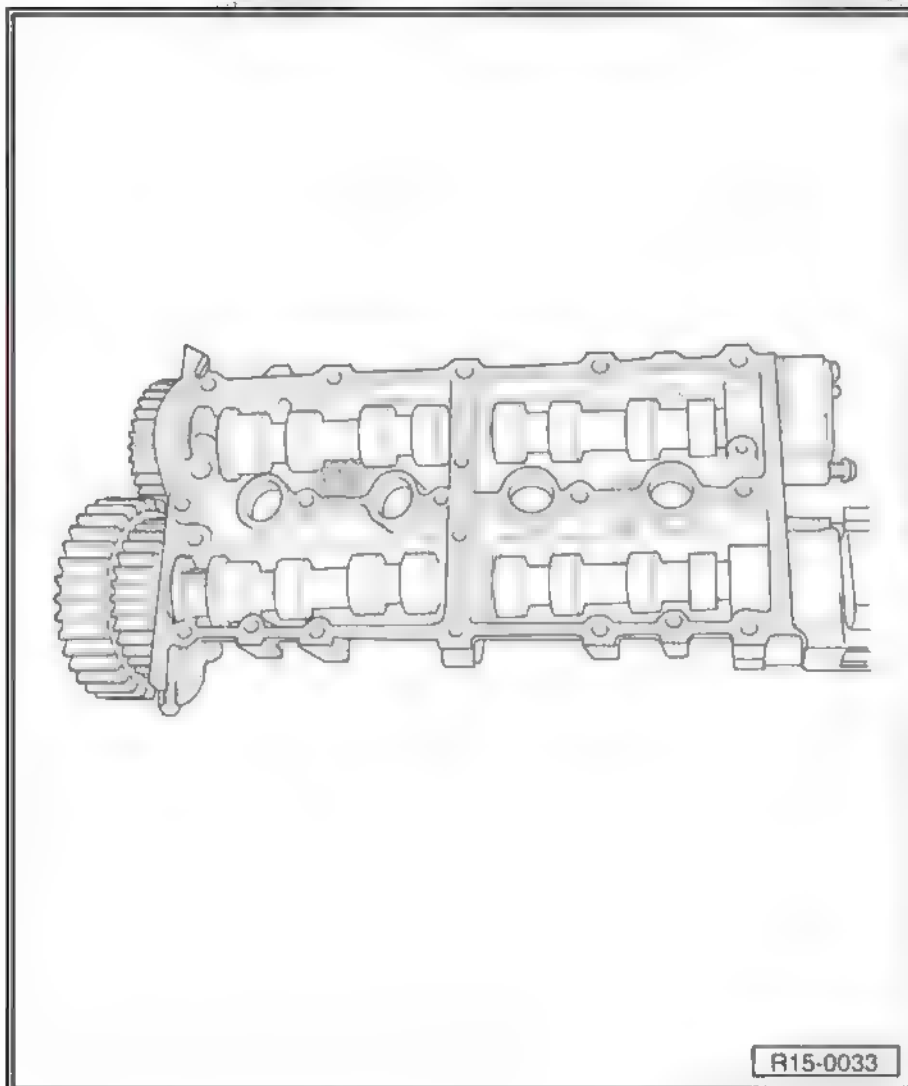
- 8V engine - RSH
- Product used
- Sealing compound for engines → [page 11](#)





8.7 Cylinder head cover - seal

- 16 V engine - RSH
- Product used
- Sealing compound for engines → [page 11](#)





9 Repair Group 17 - Lubrication system



WARNING

Check the regulations on the disposal of each product and packaging as per manufacturer's guidelines and current legislation at local, state and federal level.

Observe the information in Chapter "Work Instructions for Handling Chemicals" ➔ [page 18](#)

9.1 Engine crankcase - Fill / top up oil level

- Product used

- Engines - All up to 11/2002 ,
except Passat 2001 ➤

- Multi-purpose engine lubricating,
as per VW 501 01
standard ➔ [page 11](#)

- Engines - For Passat 2001 ➤
and all as of 12/2002 ➤
12/2014

- Engine lubricating oil with
high lubricating capacity, as
per VW 502 00 standard
➔ [page 12](#)

- Engines - all totalflex 2015 ➤

- Engine lubricating oil with
high lubricating capacity, as
per VW 508 88 standard
➔ [page 12](#)

- Engines - 2.4 Caravelle and
Eurovan

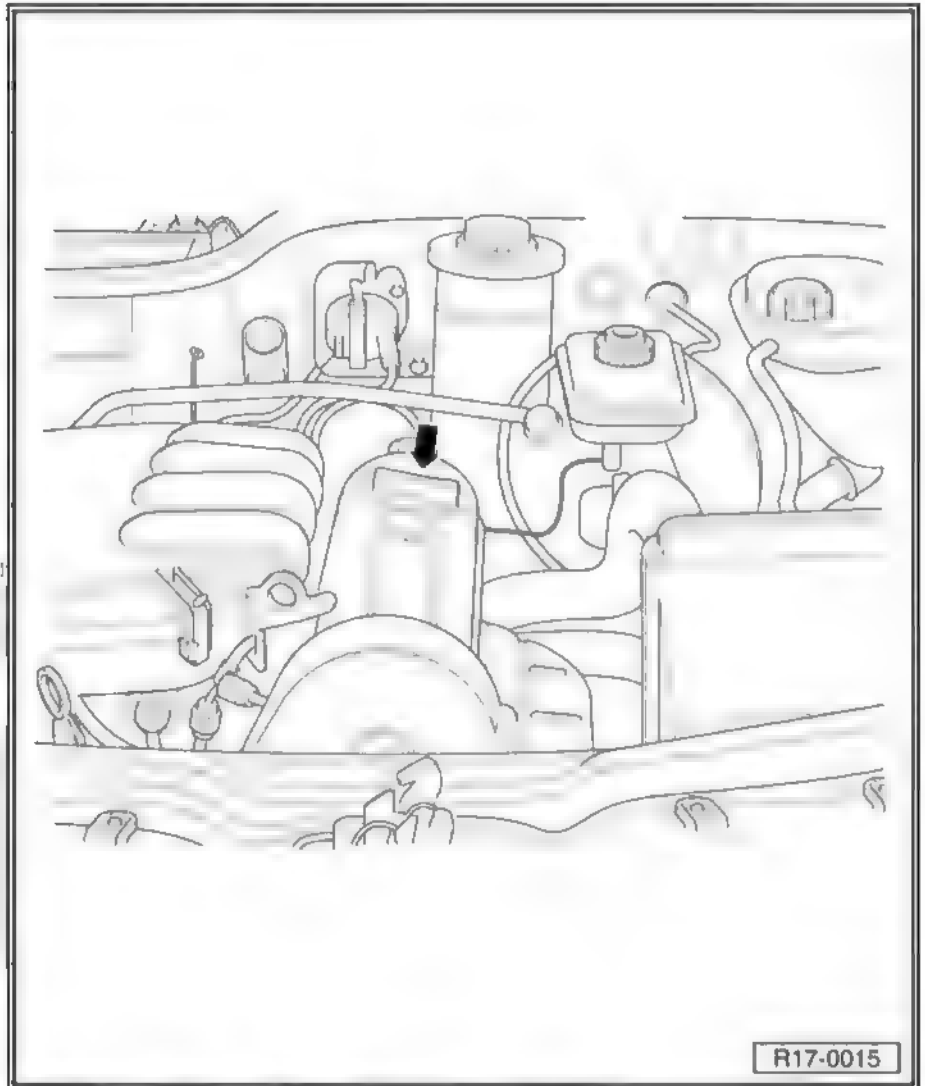
- Lubricating oil for diesel engines - VW 505 00 standard
➔ [page 12](#)

- Engines - 2.0 T Amarok (without
diesel particulate filter -
DPF)

- Lubricating oil for diesel engines - VW 509 99 standard
➔ [page 13](#)

- Engines - 2.0 T Amarok (with
diesel particulate filter - DPF)

- Lubricating oil for diesel engines - VW 507 00 standard
➔ [page 12](#)





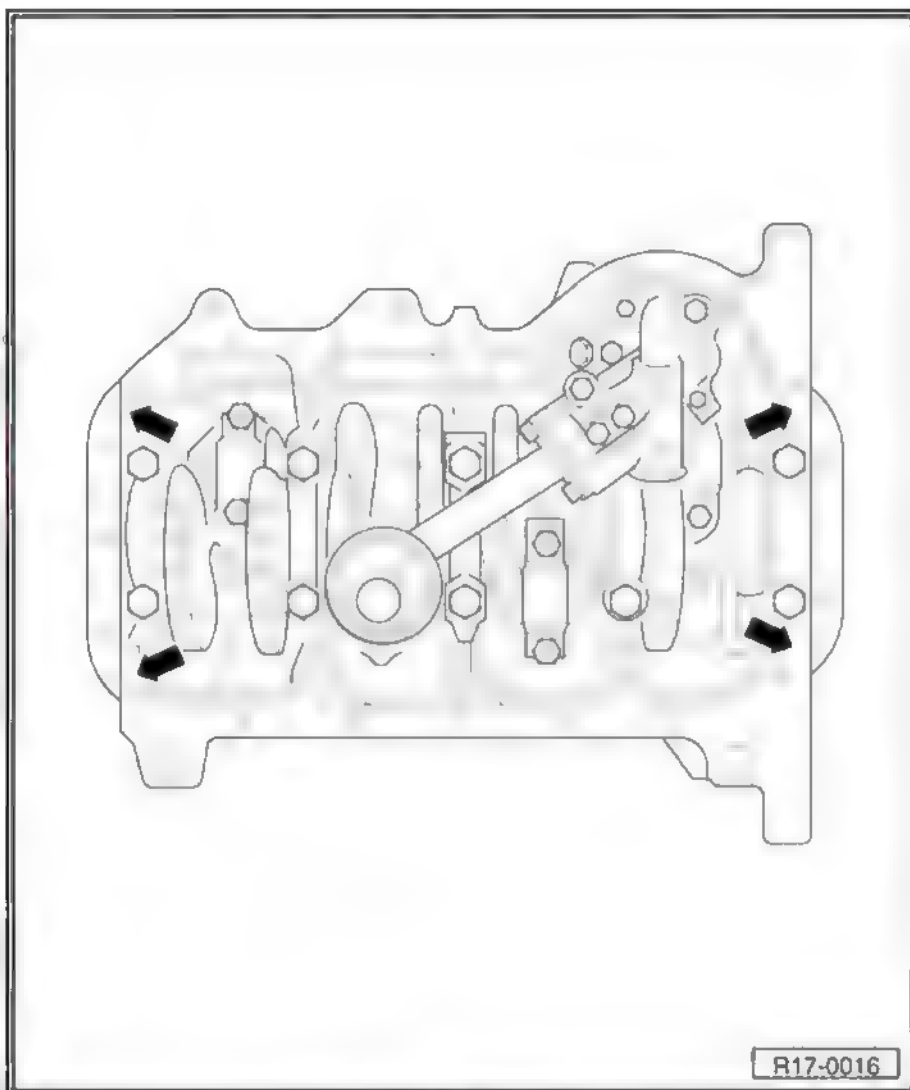
9.2 Junction between crankcase gaskets and crankshaft front and rear flange gasket - seal

- AP engines with solid crankcase gasket

- Product used

- Engine sealing adhesive

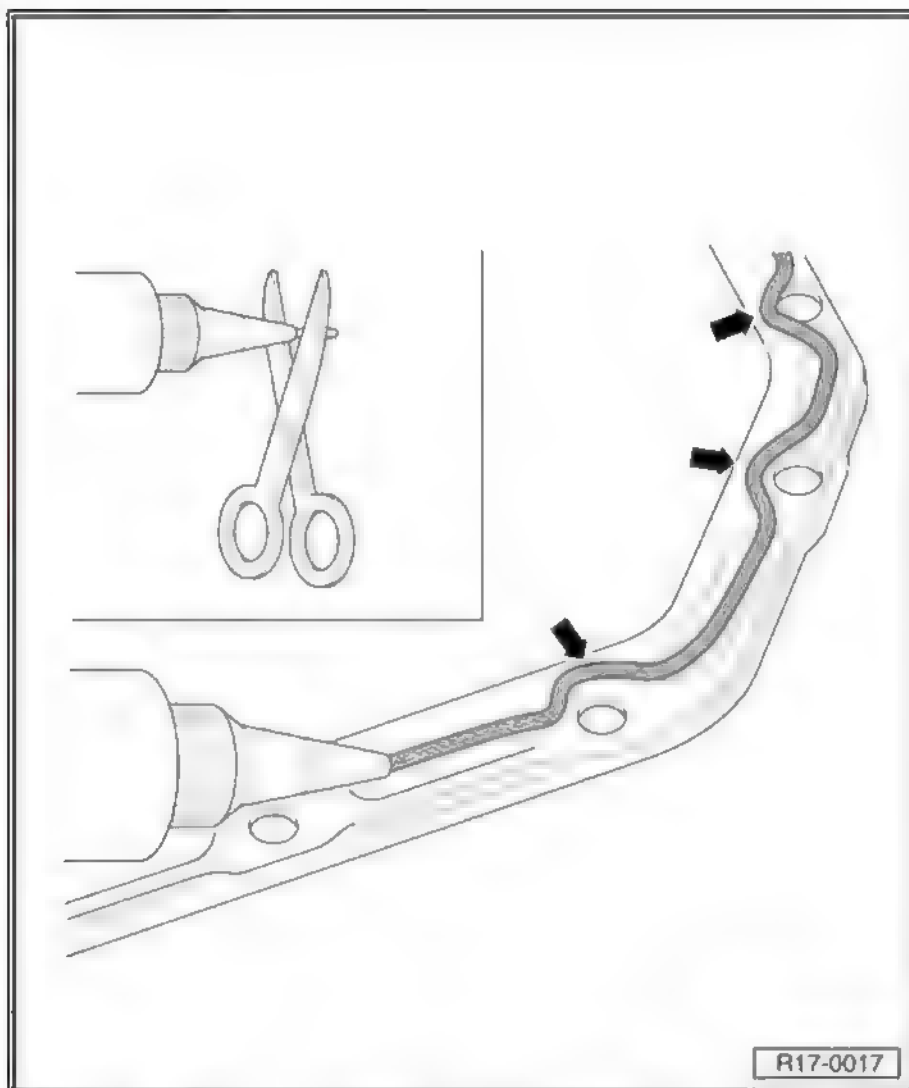
→ [page 5](#)





9.3 Engine crankcase - seal

- Engines without solid crankcase gasket
- Product used
- Silicone sealant for engine
⇒ [page 17](#)





10 Repair Group 19 - Cooling system



Check the regulations on the disposal of each product and packaging as per manufacturer's guidelines and current legislation at local, state and federal level.

Observe the information in Chapter "Work Instructions for Handling Chemicals" \Rightarrow page 18

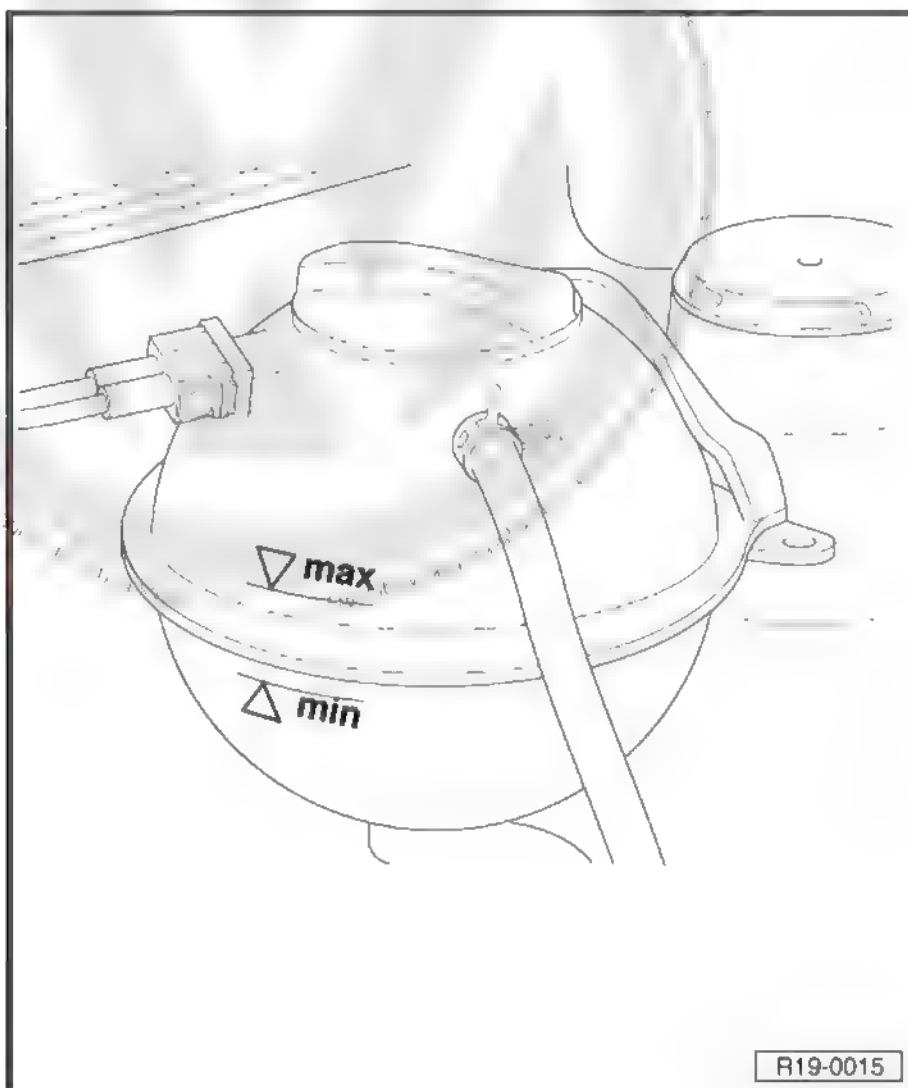
10.1 G11 cooling system - fill / adjust additive proportion

- Water-cooled engines

*For vehicles manufactured up to 05/01/2000

- Product used

- Coolant additive - G11
- ⇒ page 6





10.2 G13 cooling system - fill / adjust additive proportion.

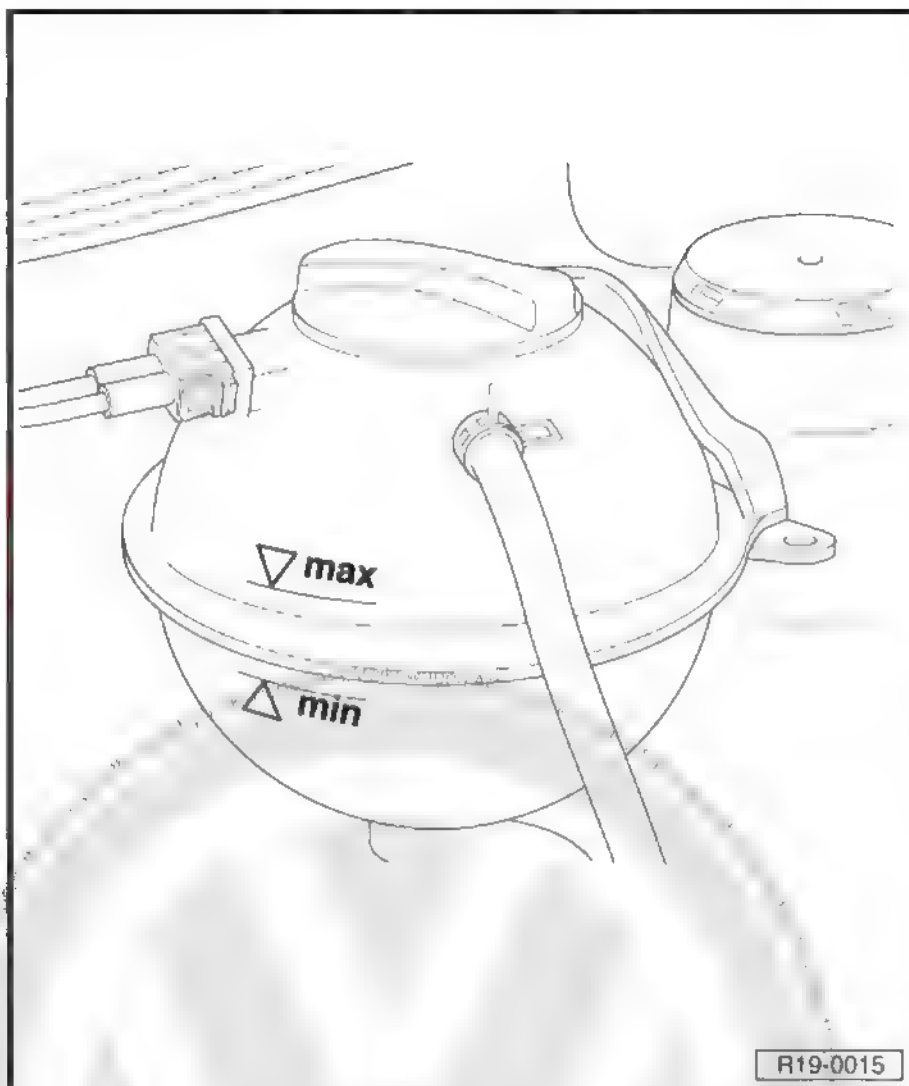
- Water-cooled engines

*For vehicles manufactured as
from 05/02/2000

- Product used

- Coolant additive - G13

⇒ [page 7](#)





11 Repair Group 20 - Supply system - tank, fuel pump



WARNING

Check the regulations on the disposal of each product and packaging as per manufacturer's guidelines and current legislation at local, state and federal level.

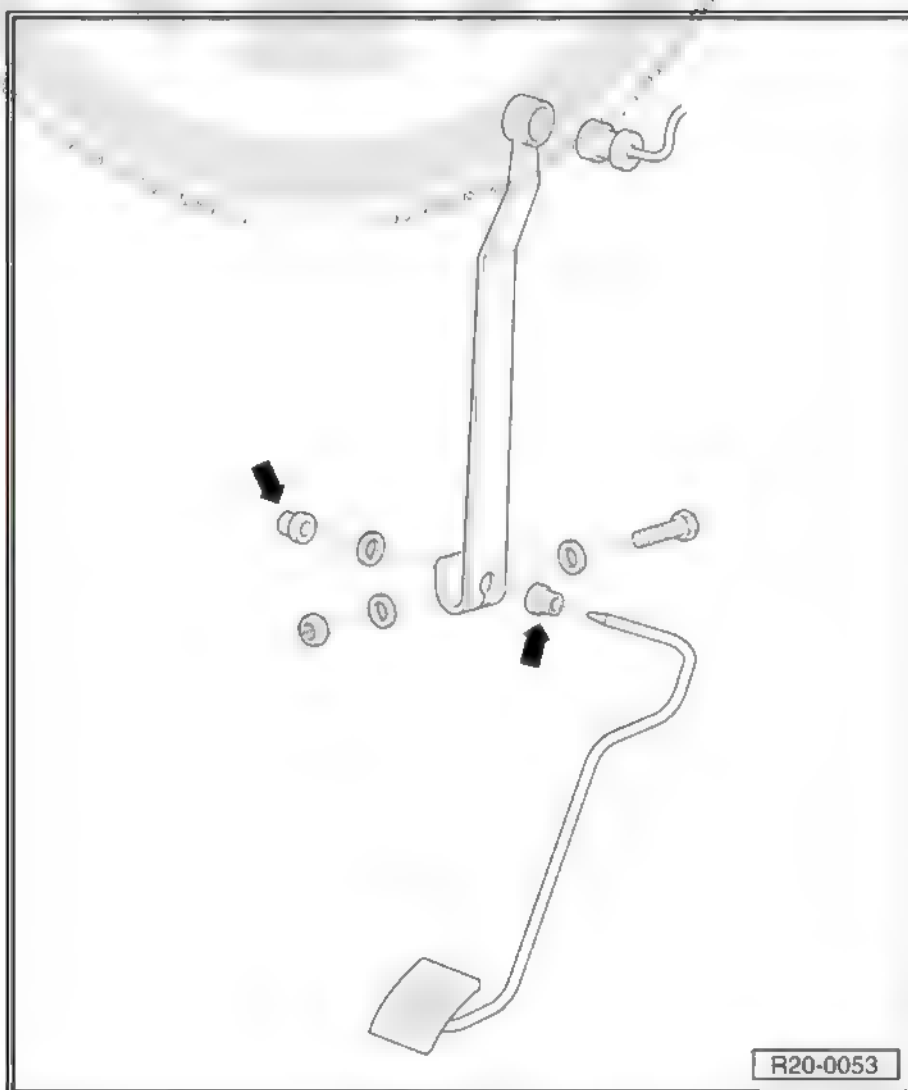
Observe the information in Chapter "Work Instructions for Handling Chemicals" ⇒ [page 18](#)

11.1 Accelerator pedal shaft - lubricate

- All (except Kombi and E-gas vehicles)

- Product used

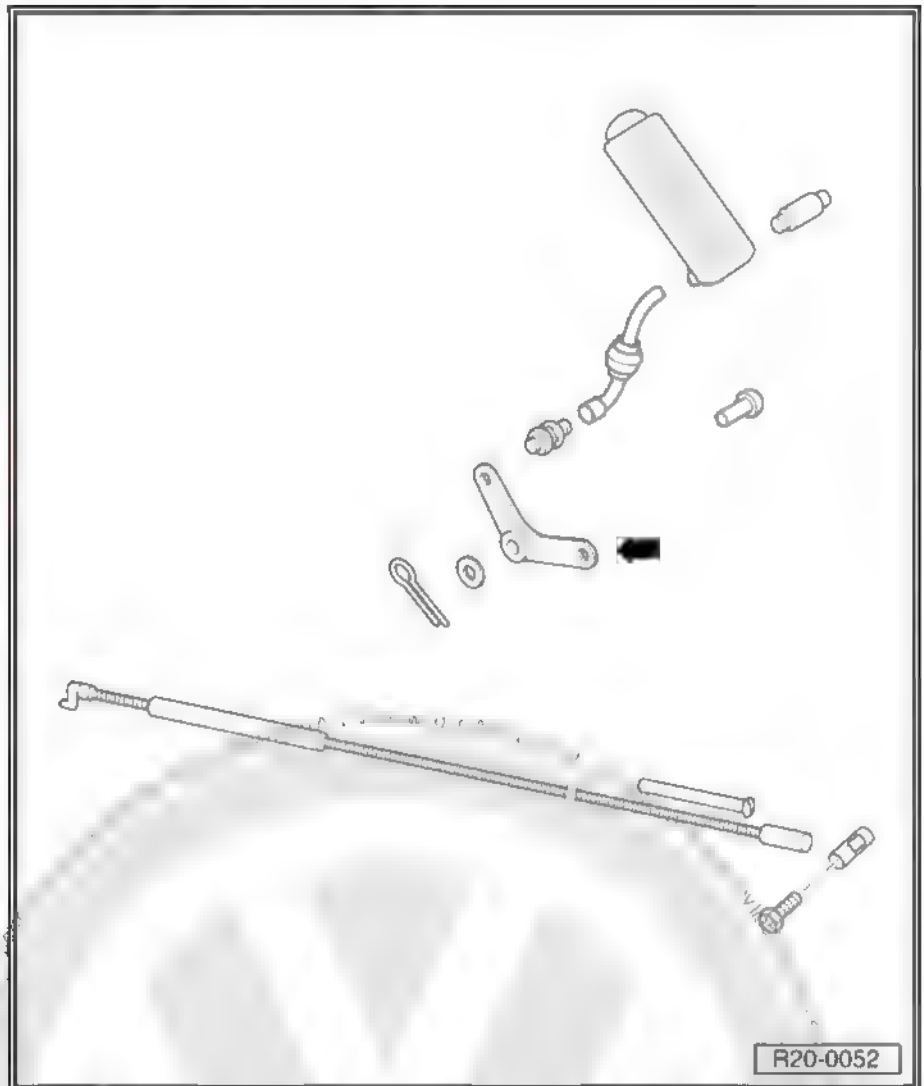
- White lubricating grease
⇒ [page 15](#)





11.2 Accelerator pedal fastening - lubricate

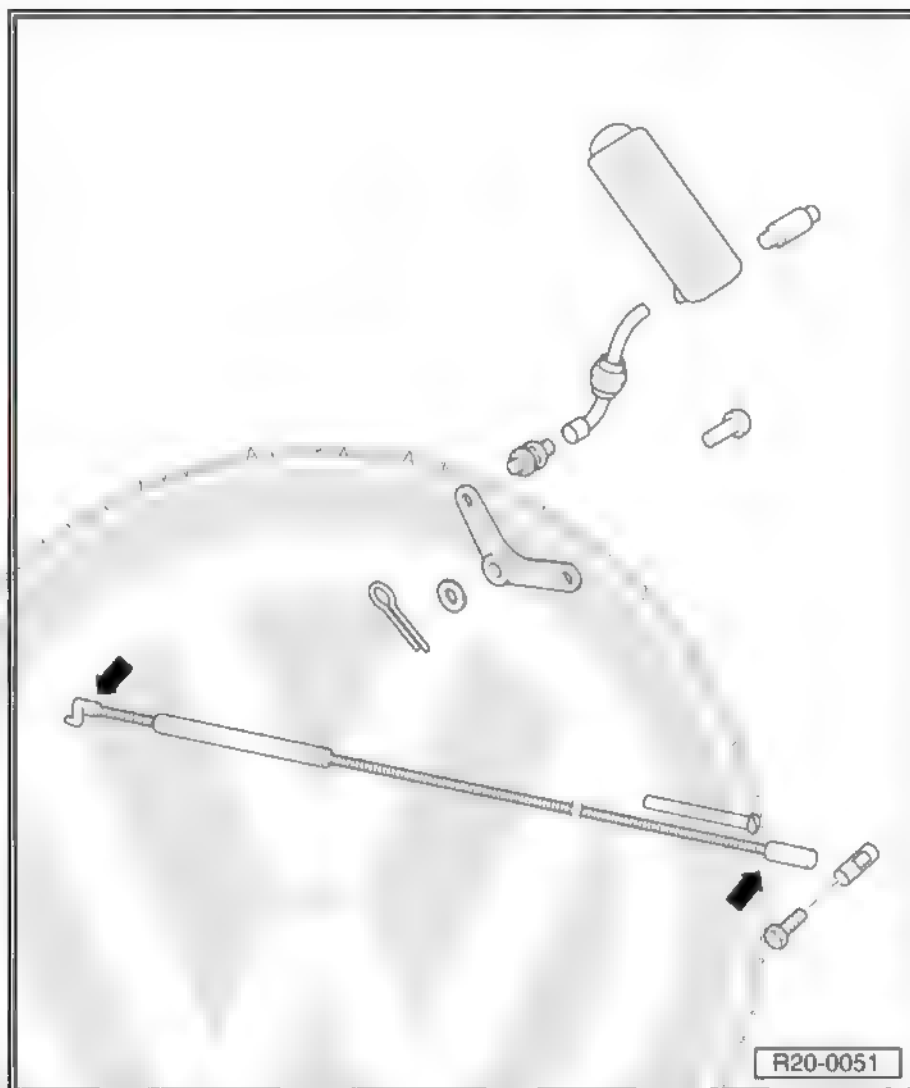
- Kombi
- Product used
- Multi-purpose grease
➤ [page 8](#)





11.3 Accelerator cable and cable end - accelerator pedal fastening - lubricate

- Kombi
 - Product used
 - Multi-purpose grease
- ➔ [page 8](#)





12 Repair Group 26 - Exhaust system



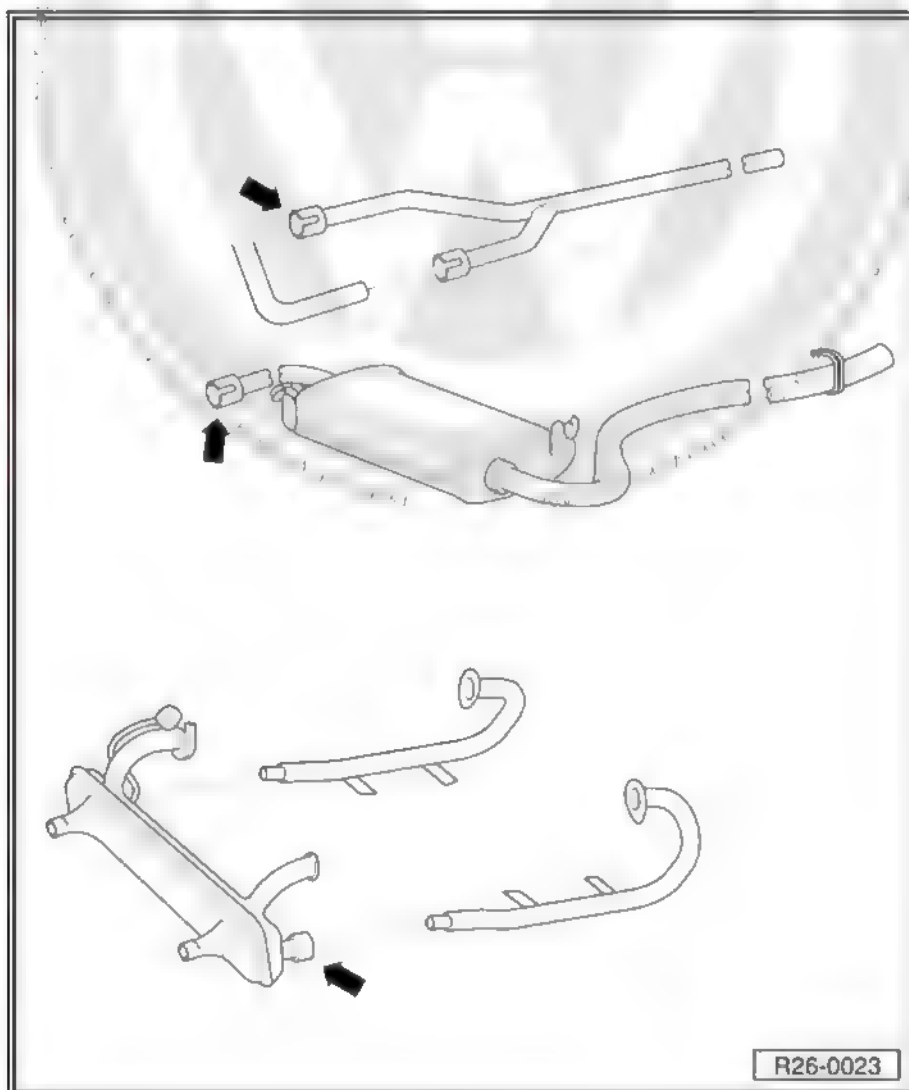
WARNING

Check the regulations on the disposal of each product and packaging as per manufacturer's guidelines and current legislation at local, state and federal level.

Observe the information in Chapter "Work Instructions for Handling Chemicals" ➔ [page 18](#)

12.1 Exhaust connection - seal

- All
- Product used
- Sealant for exhaust connections ➔ [page 17](#)





13 Repair Group - 28 - Ignition system, pre-ignition system



WARNING

Check the regulations on the disposal of each product and packaging as per manufacturer's guidelines and current legislation at local, state and federal level.

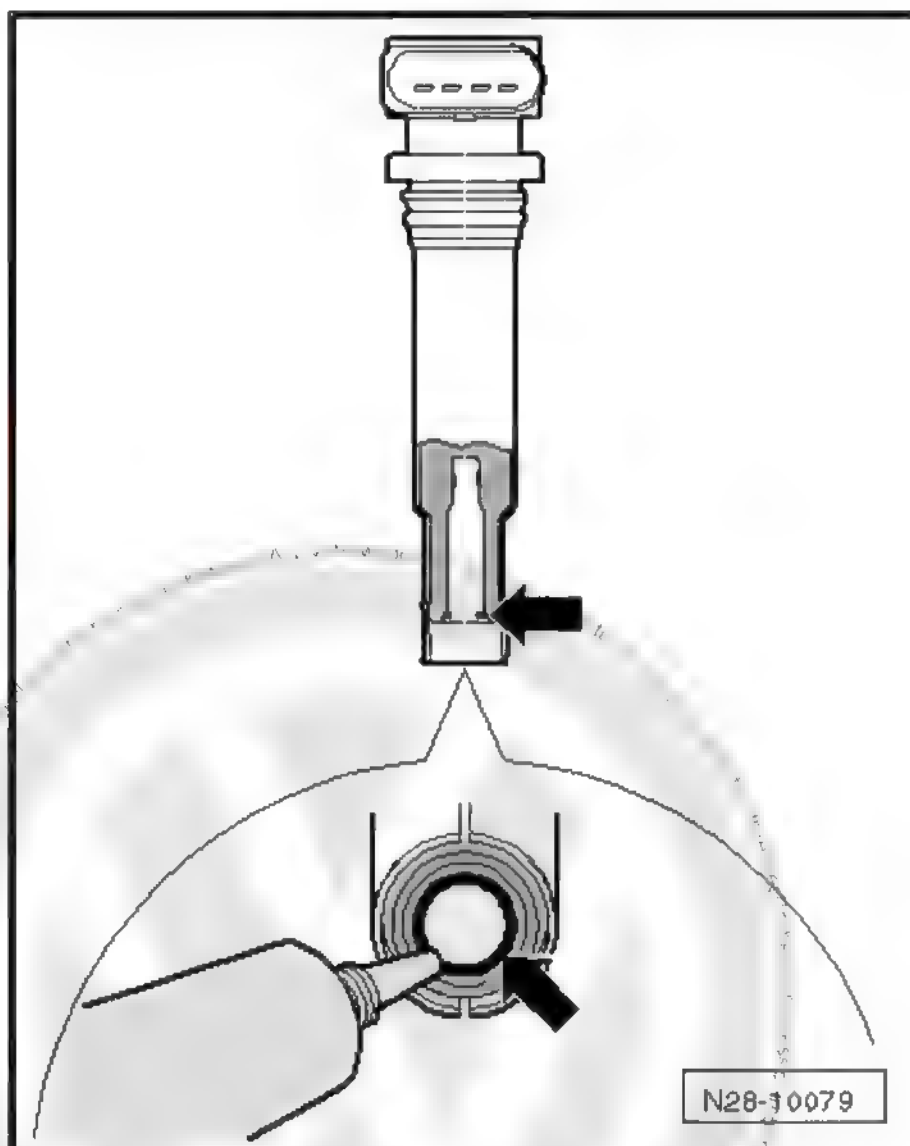
Observe the information in Chapter "Work Instructions for Handling Chemicals" ➤ [page 18](#)

13.1 Ignition coils with final power stage - lubricate

- Engines with ignition coils with final power stage

- Product used

- Silicon lubricating grease
➤ [page 15](#)





14 Repair Group 30 - Clutch - control system



WARNING

Check the regulations on the disposal of each product and packaging as per manufacturer's guidelines and current legislation at local, state and federal level.

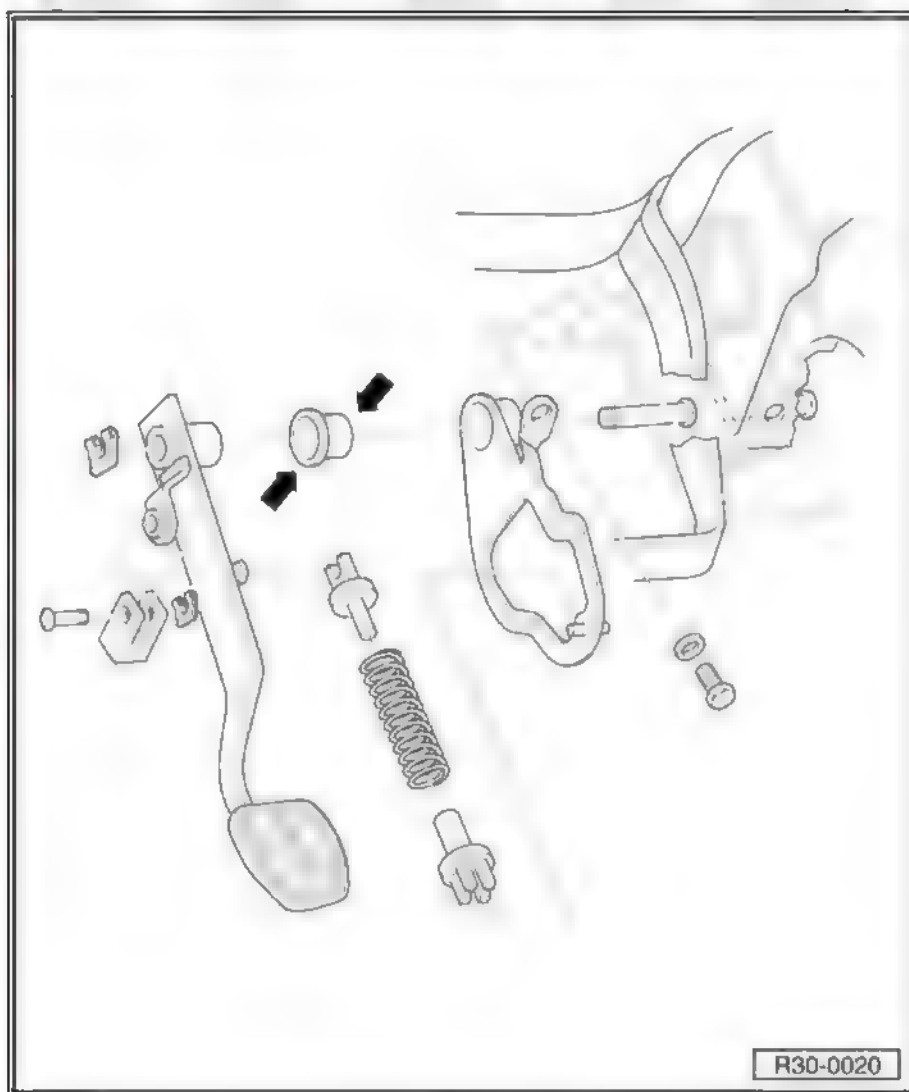
Observe the information in Chapter "Work Instructions for Handling Chemicals" ➔ [page 18](#)

14.1 Clutch pedal bung - lubricate

- Gol GTI 16 V and Parati GTI 16 V

- Product used

- Lubricating paste for constant velocity joints ➔ [page 11](#)





14.2 Clutch control cable - lubricate

- Gol, Parati, Saveiro and Santana

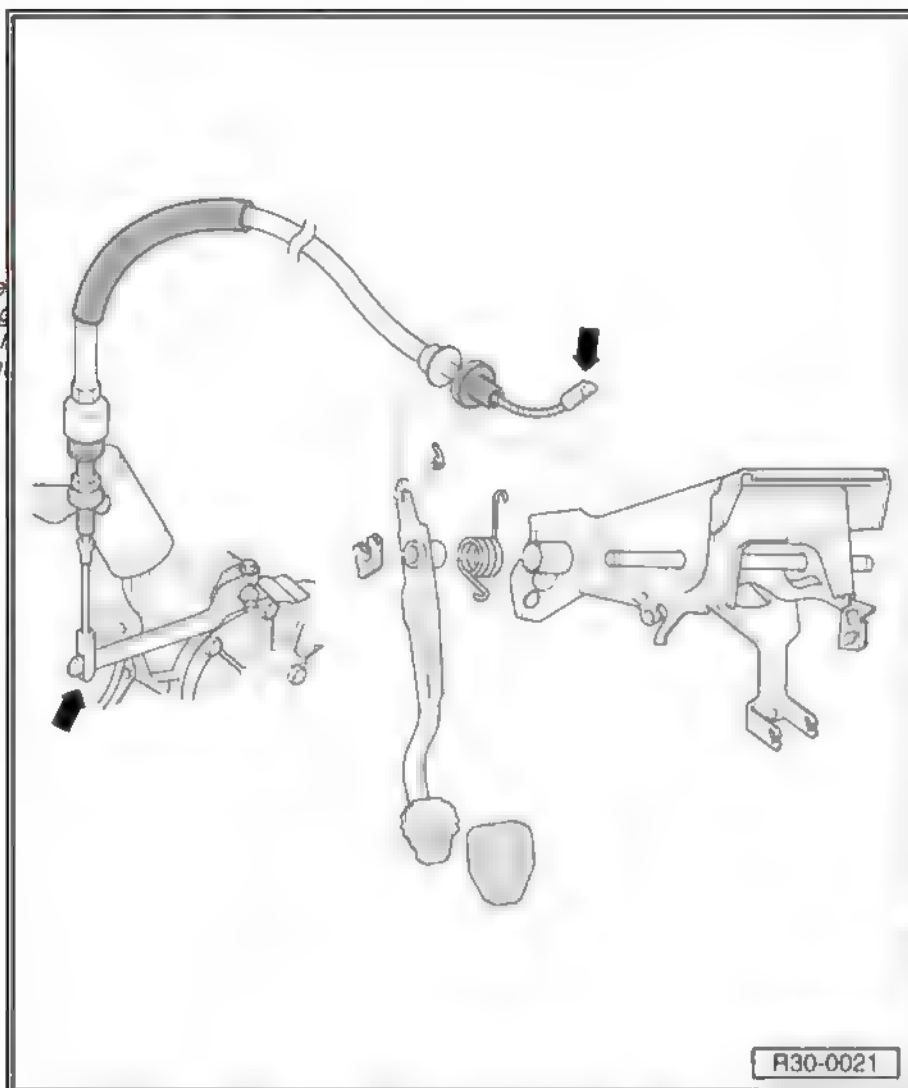
- Product used

- Lubricating paste for constant velocity joints → [page 11](#)



Note

Lubrication of the cable and the clutch lever, in the g only valid for 1.6, 1.8 and engines manufactured un





14.3 Clutch fork, contact with bearing - lubricate

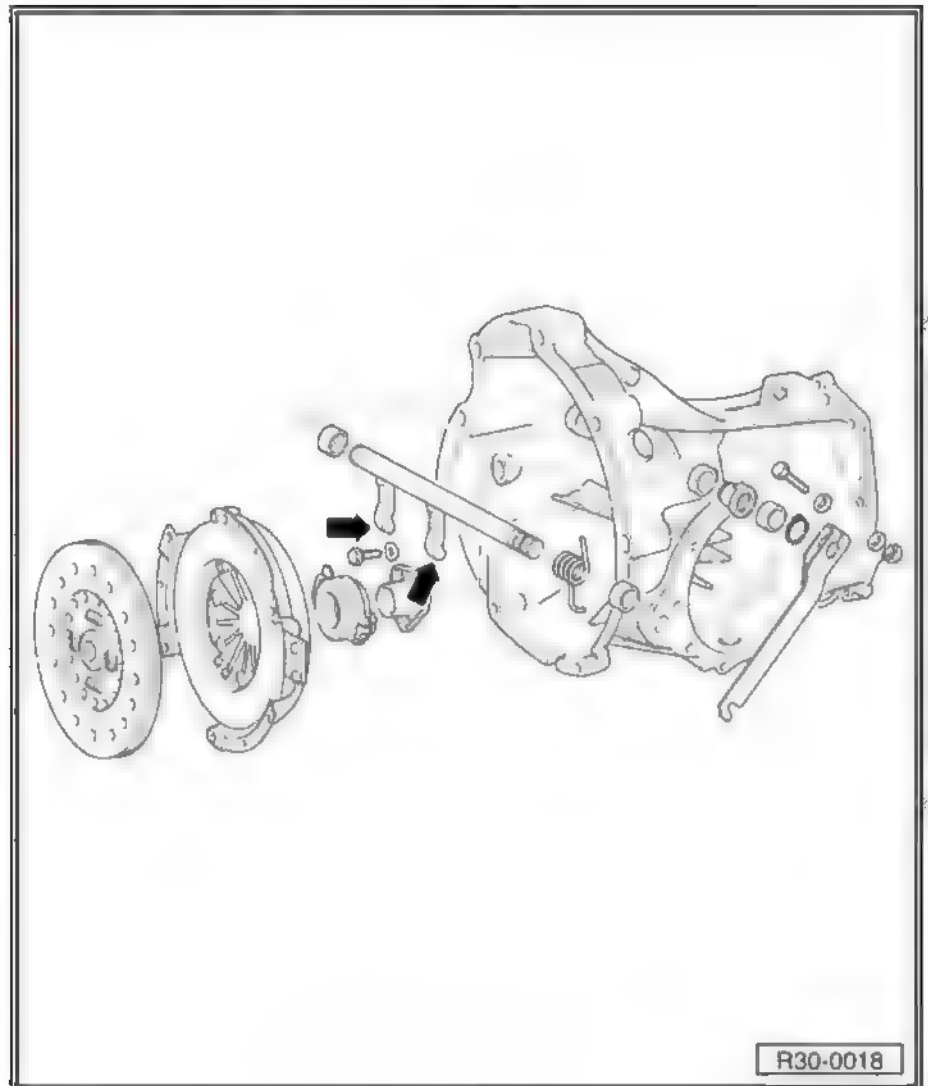
- Gearboxes

013 - 1.0 L

013 - 1.6, 1.8 and 2.0 L

- Product used

- Lubricating paste for constant velocity joints ➔ [page 11](#)





14.4 Clutch fork bungs - lubricate

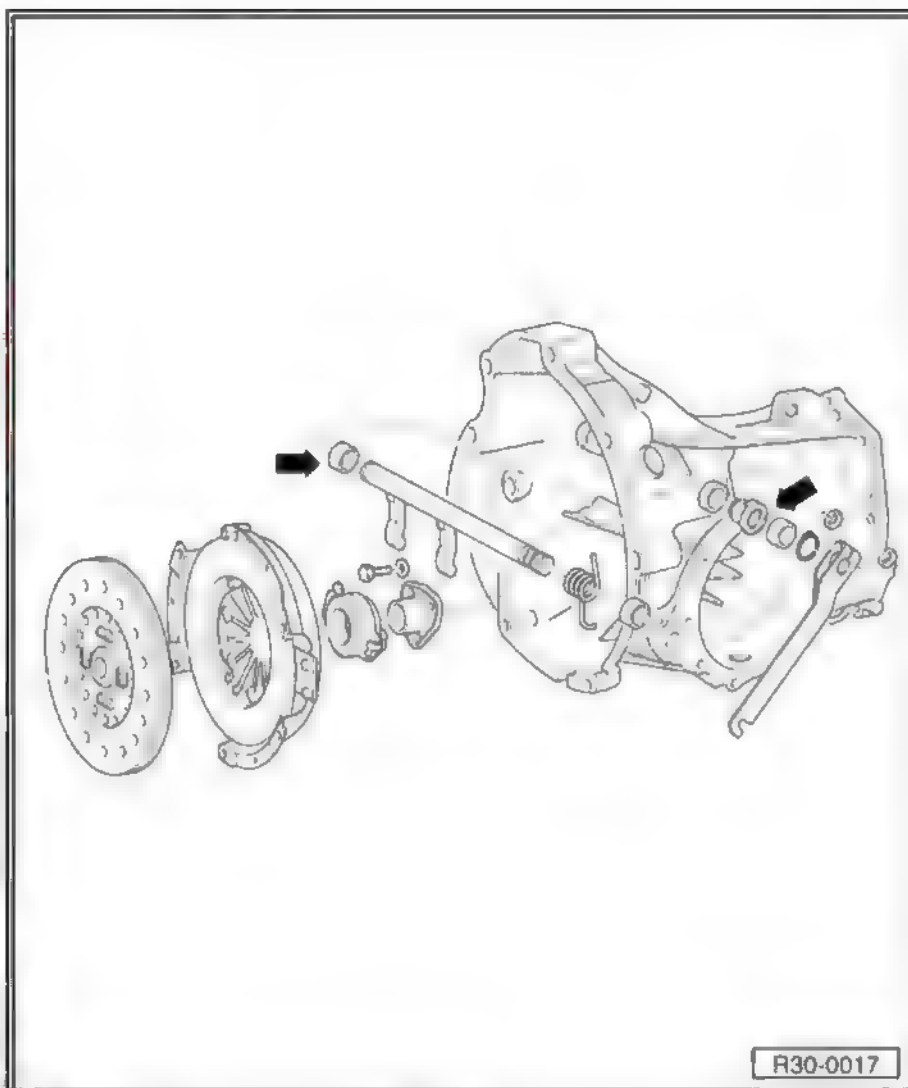
- Gearboxes

013 - 1.0 L

013 - 1.6 L , 1.8 L and 2.0 L

- Product used

- Lubricating paste for constant velocity joints ➔ [page 11](#)





14.5 Wing nut for clutch control cable adjustment - lubricate

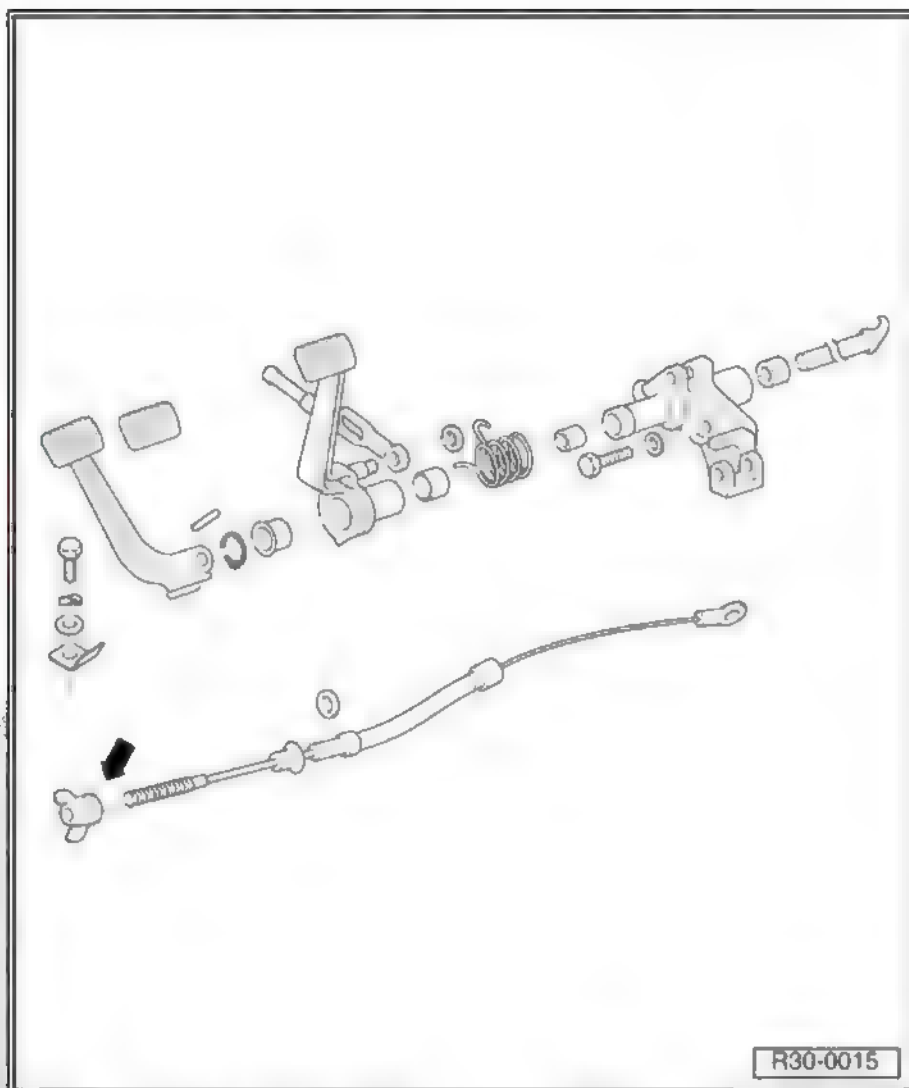
- Gearbox

081

- Product used

- Multi-purpose grease

⇒ [page 8](#)





14.6 Sealing ring for the de-clutch bearing guide - lubricate for assembly

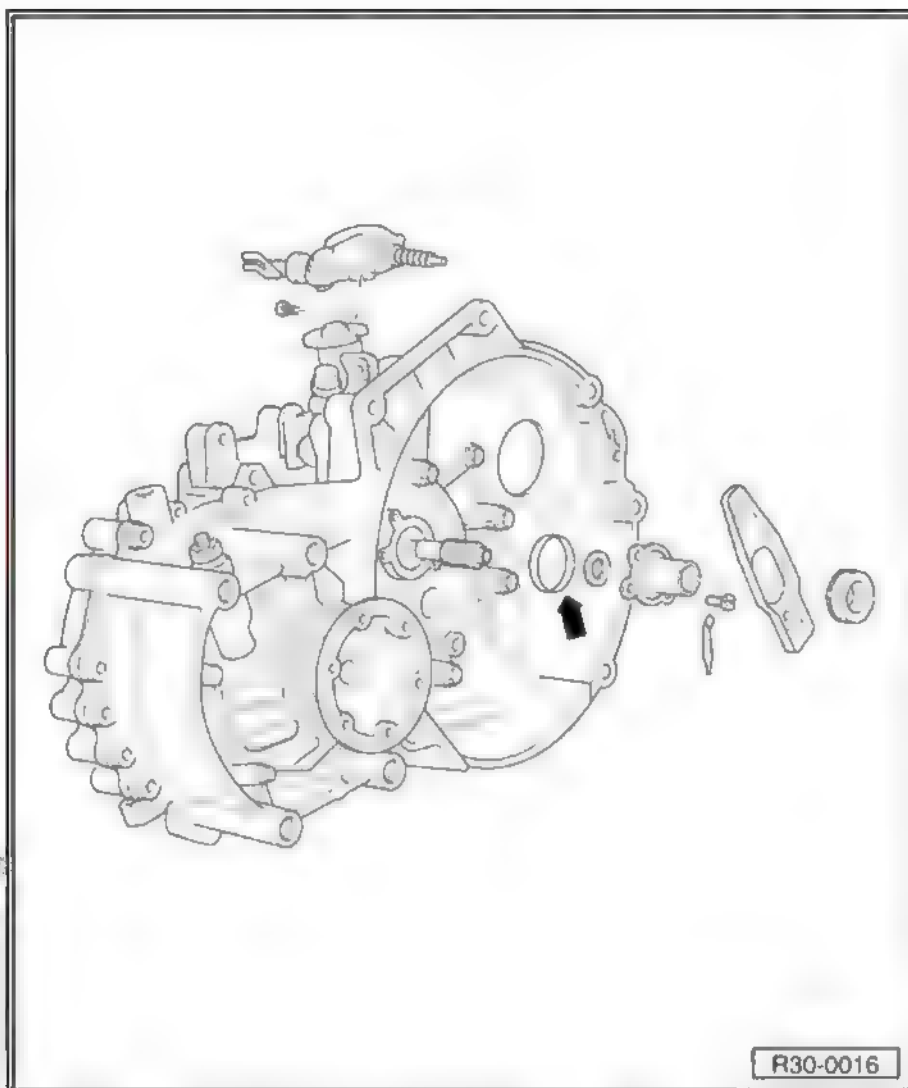
- Gearboxes

- ☐ MQ 200
- ☐ MQ 250

- Product used

- Multi-purpose grease

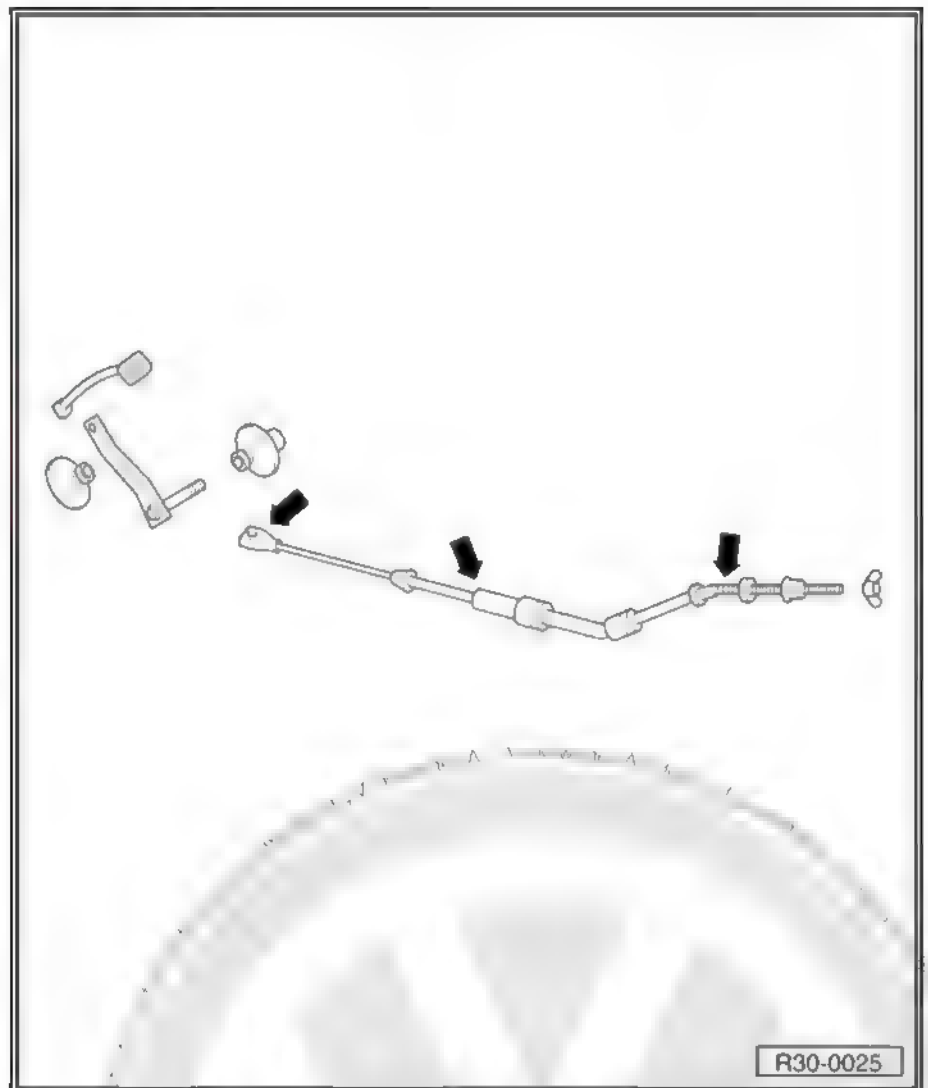
⇒ [page 8](#)





14.7 Clutch cable - lubricate

- Kombi
- Product used
- Multi-purpose grease
→ [page 8](#)





14.8 Clutch fork and clutch actuating lever - lubricate

- Gearbox

□ 081

- Product used

- Multi-purpose grease

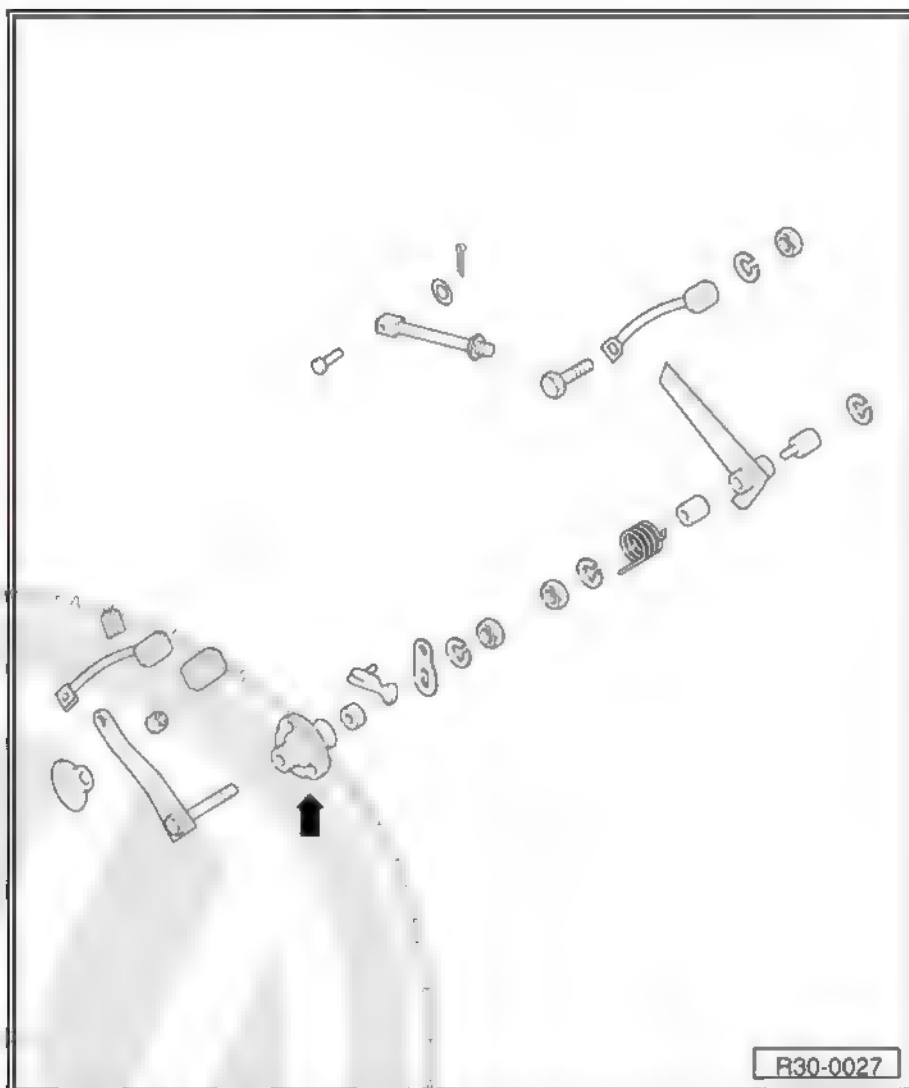
⇒ [page 8](#)





14.9 Clutch pedal fastening - lubricate

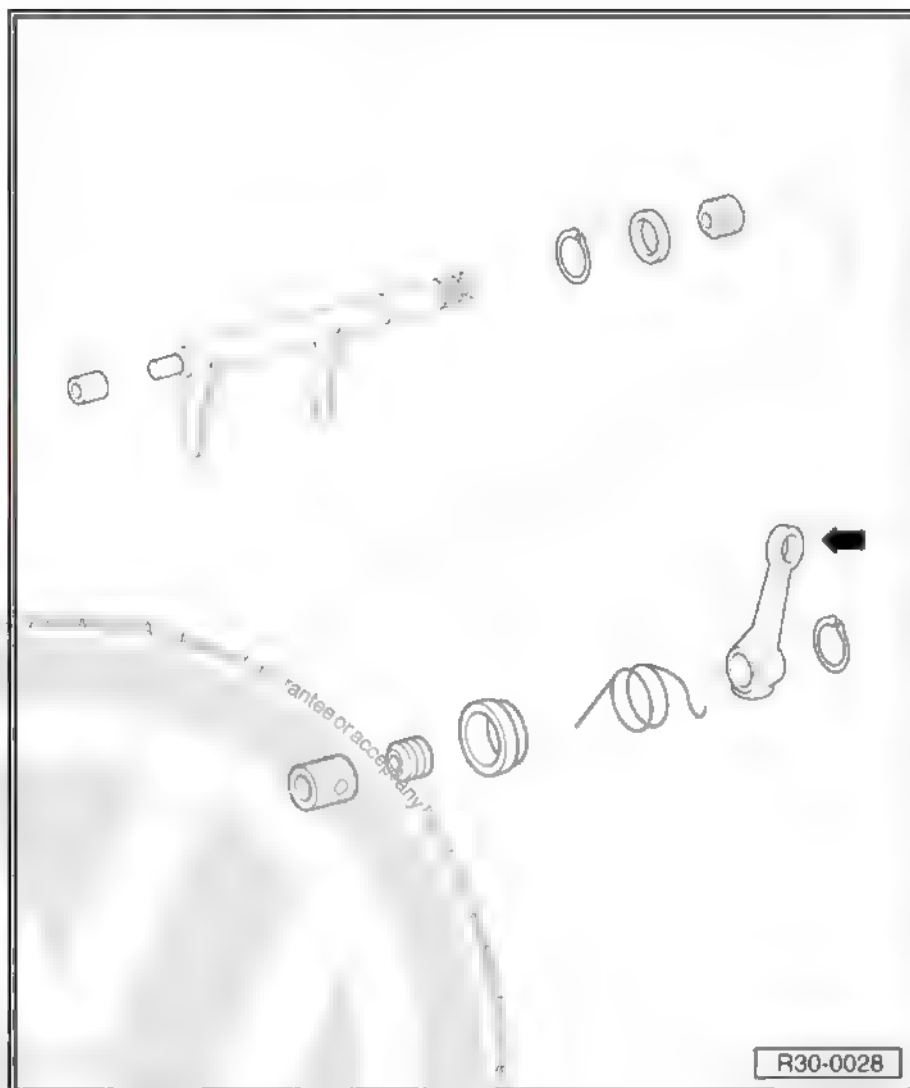
- Kombi
- Product used
- Multi-purpose grease
→ [page 8](#)





14.10 Clutch actuating lever - lubricate

- Gearbox - 081
 - Product used
 - Multi-purpose grease
- [page 8](#)





14.11 Input shaft splines - lubricate

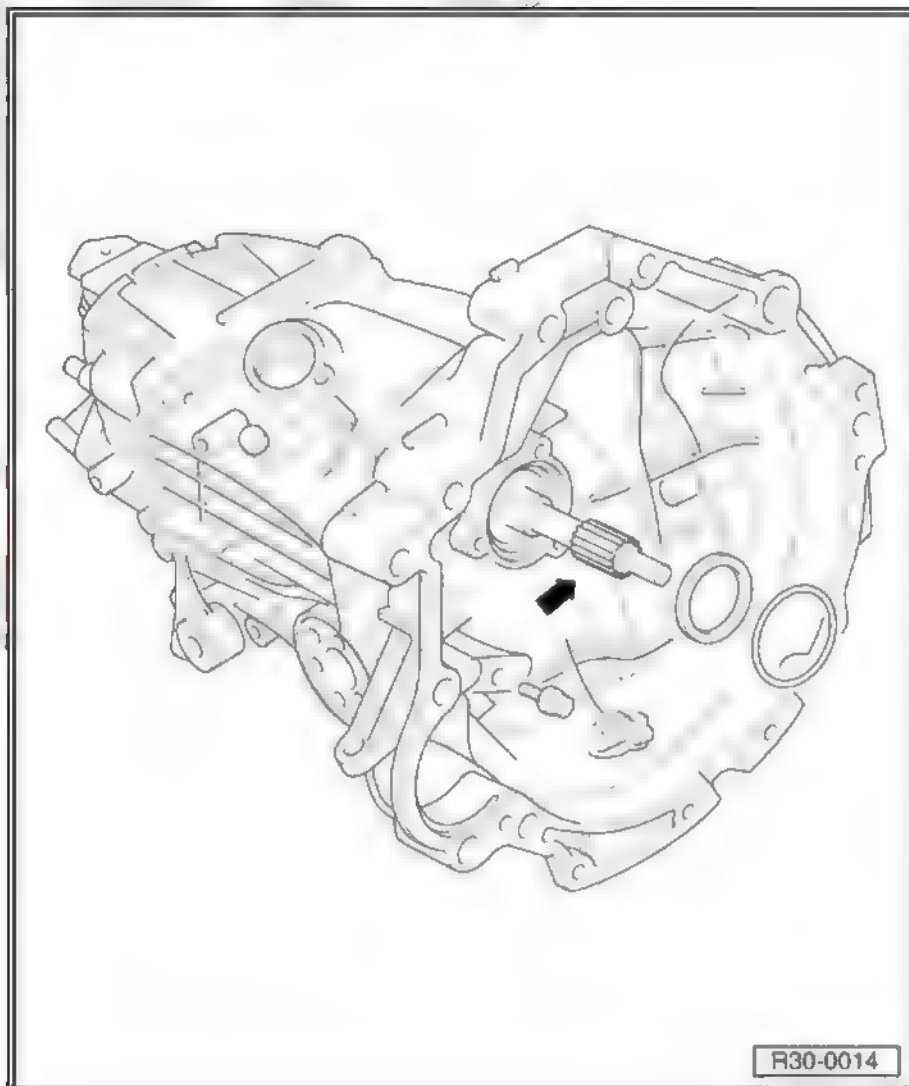
- Gearboxes

- ☐ 013 - 1.0 L
- ☐ 013 - 1.6 L, 1.8 L and 2.0 L

- Product used

- Multi-purpose grease

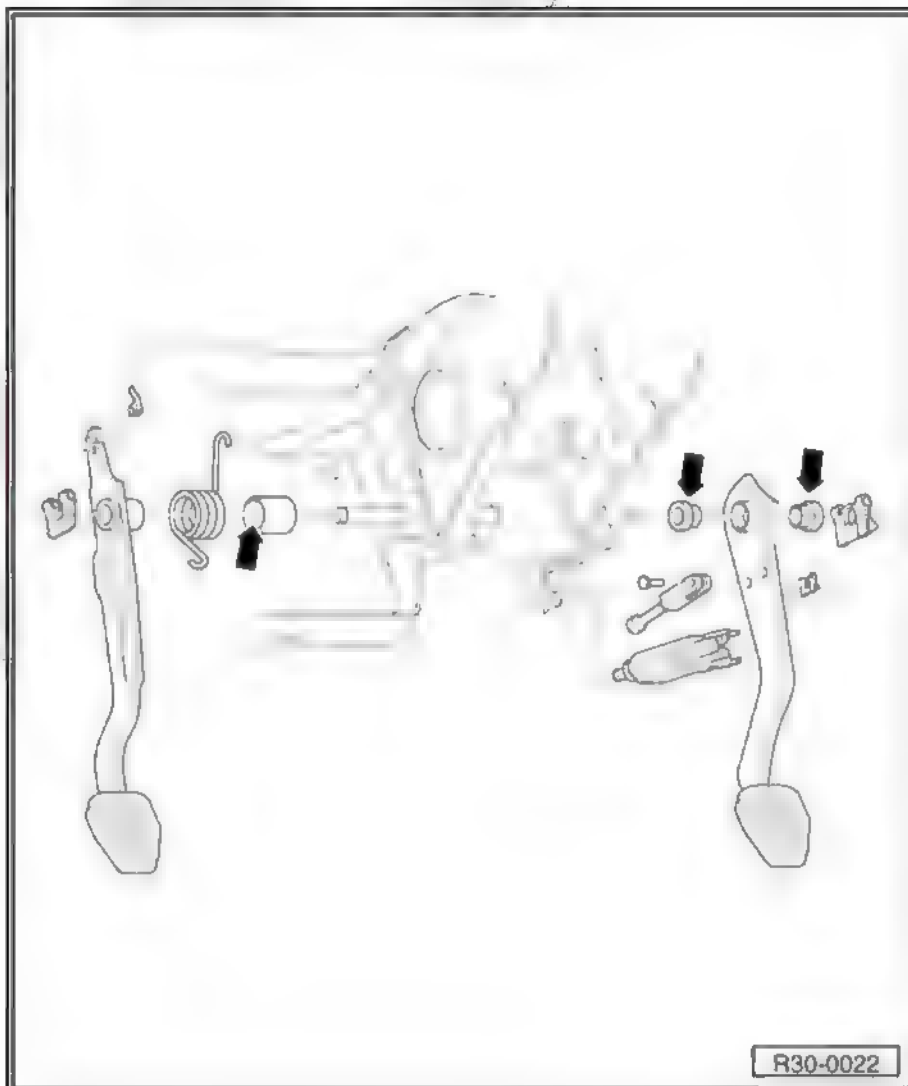
→ [page 8](#)





14.12 Clutch pedal / clutch pedal bung - lubricate

- All (except Kombi)
 - Product used
 - White lubricating grease
- [page 15](#)





14.13 Pedal support - seal

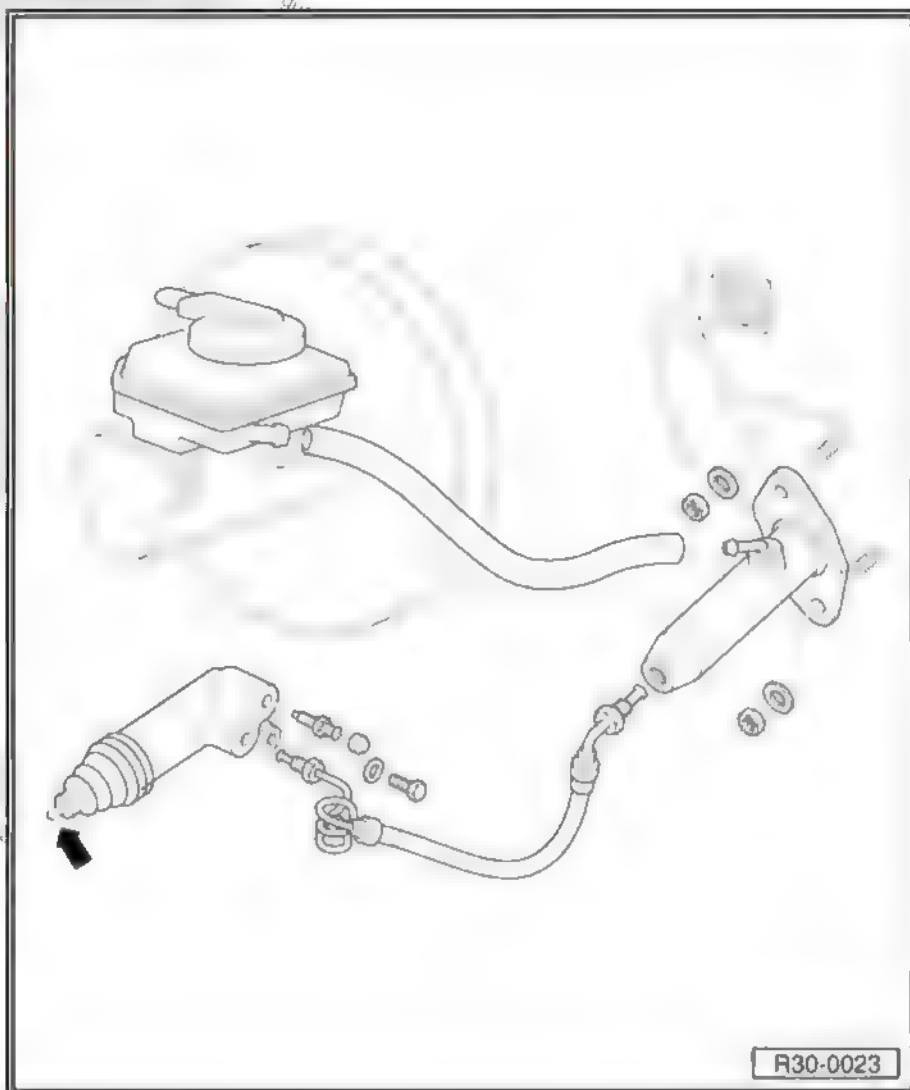
- Product used
- Sealing compound
→ [page 11](#)
- 7X0 898 539-





14.14 Clutch fork contact with the hydraulically activated cylinder of the gearbox clutch - lubricate

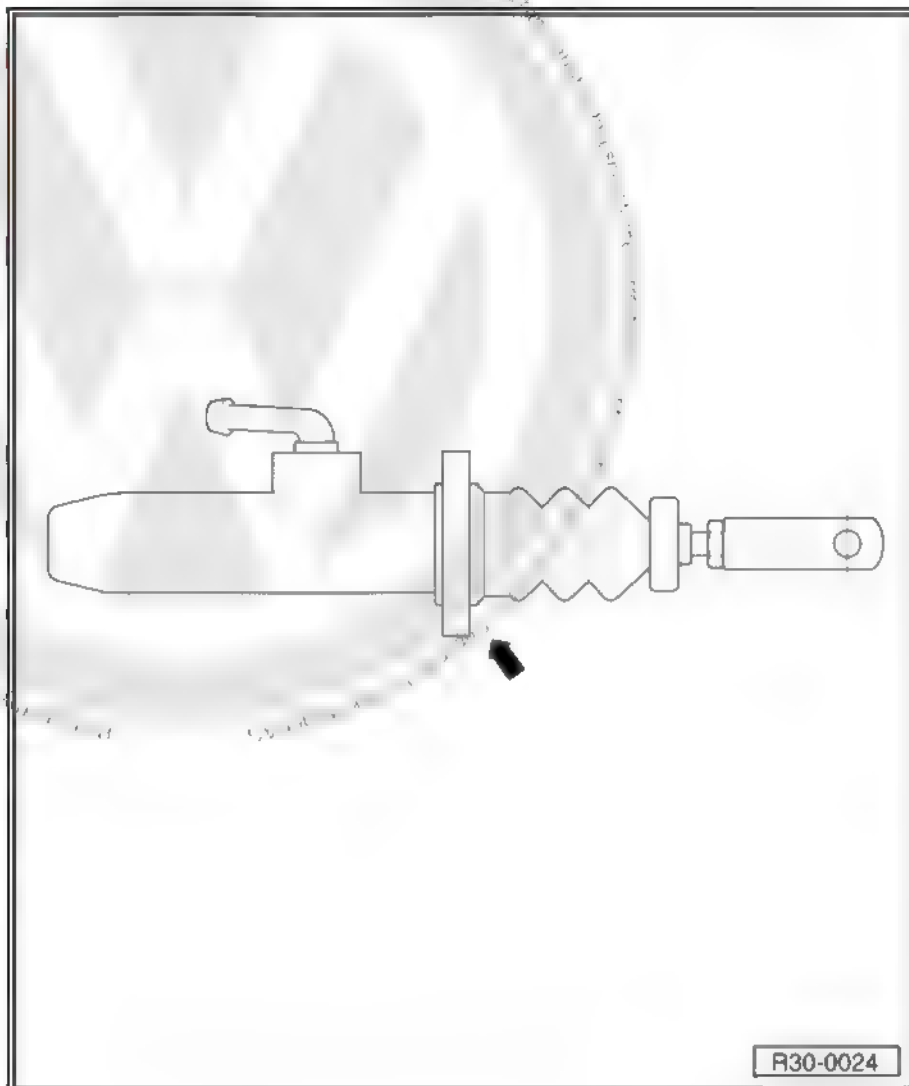
- Gearbox -
- Product used
- Copper grease ➔ [page 15](#)





14.15 Fastening flange for clutch slave cylinder - seal

- Gearbox - → [Item \(page 68\)](#)
- Product used
- Sealing compound





15 Repair Group - 34 - Drive, housing



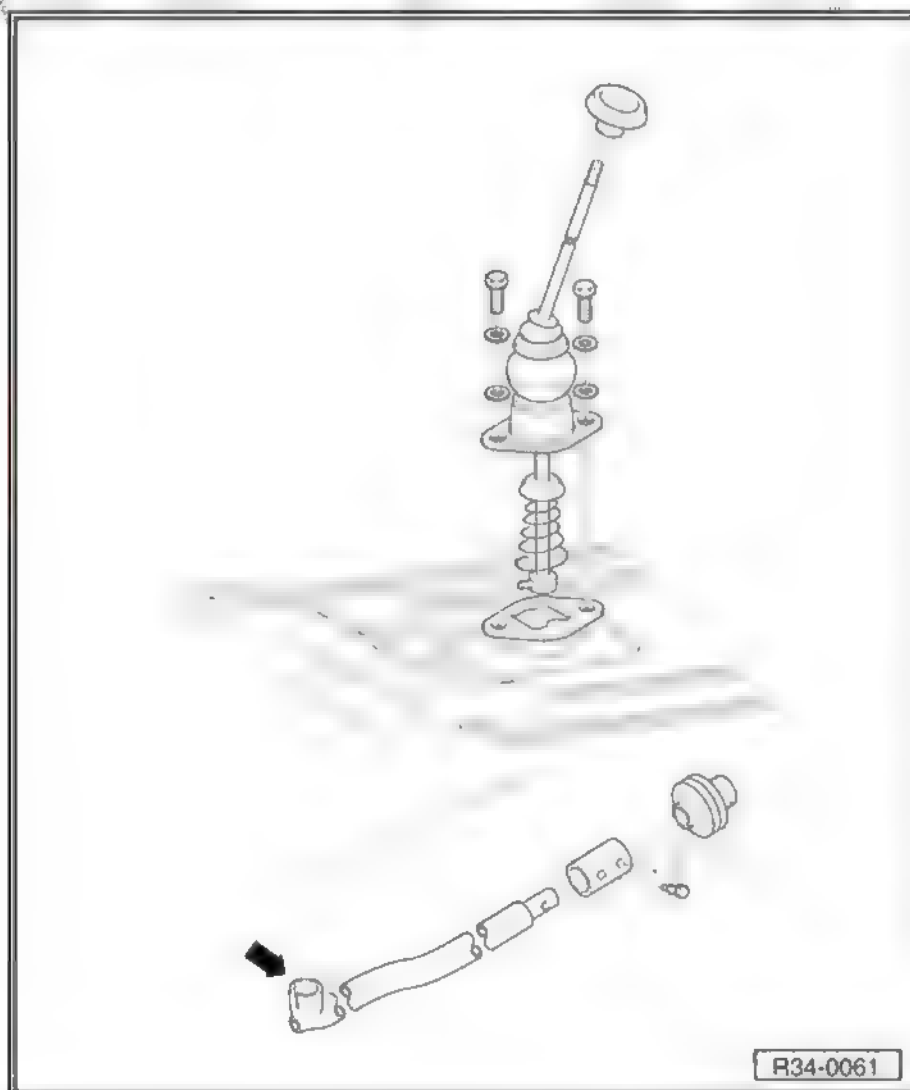
WARNING

Check the regulations on the disposal of each product and packaging as per manufacturer's guidelines and current legislation at local, state and federal level.

Observe the information in Chapter "Work Instructions for Handling Chemicals" ⇒ [page 18](#)

15.1 Linkage rod, front/rear section - lubricate

- Kombi
- Product used
- Multi-purpose grease
⇒ [page 8](#)





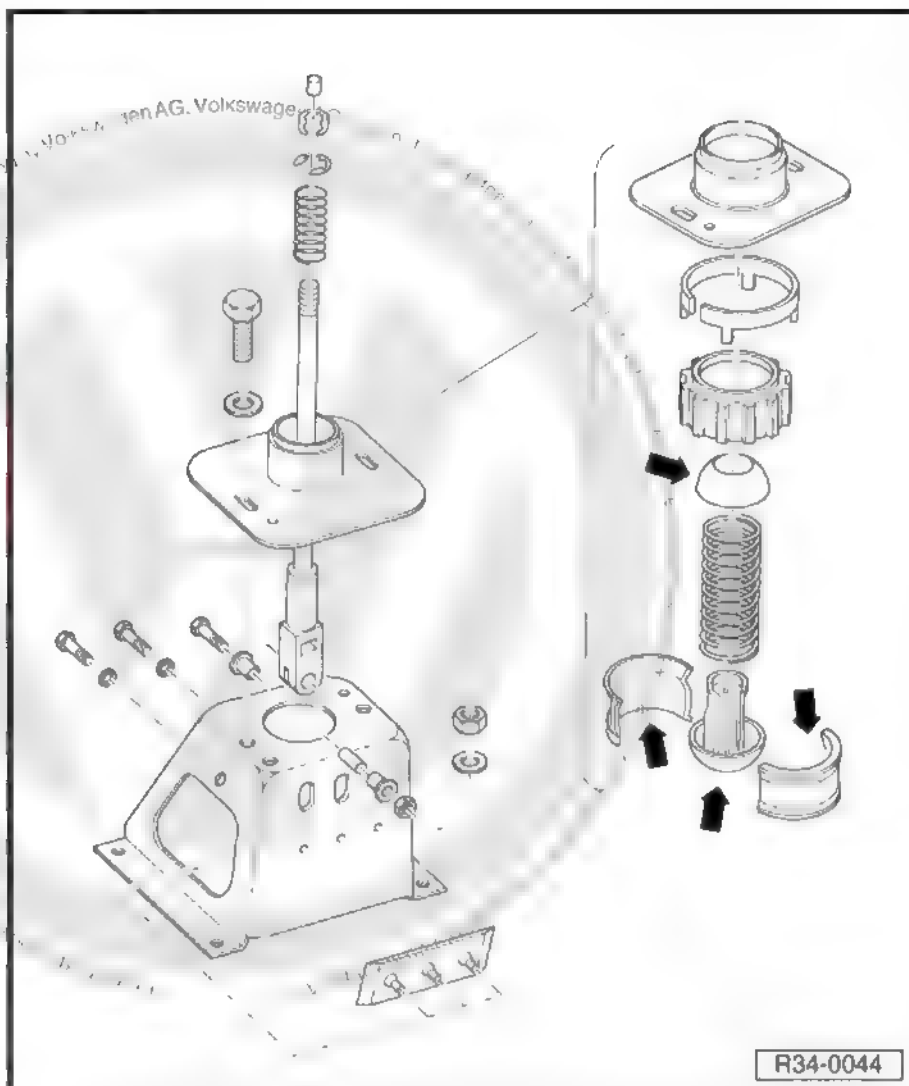
15.2 Gear lever bearing

- Gol, Parati, Saveiro and Santana

- Product used

- Special lubrication grease

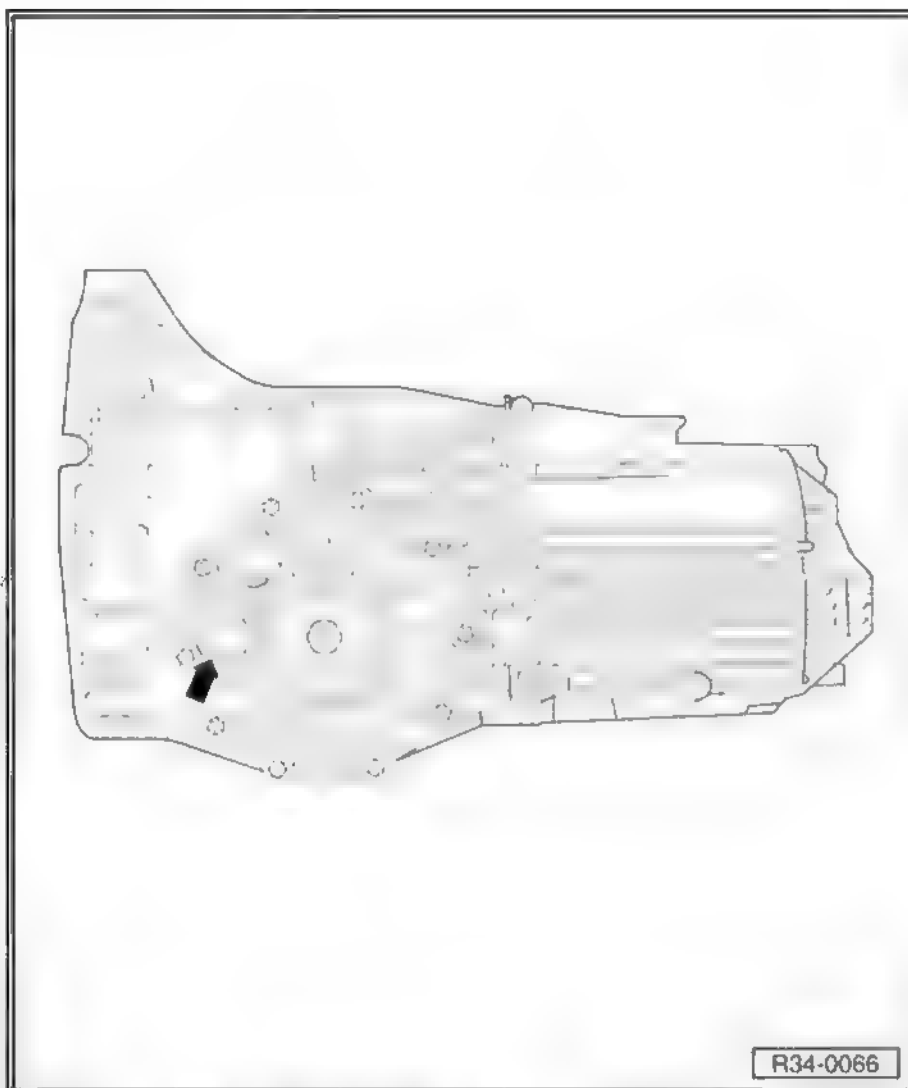
⇒ [page 9](#)





15.3 Manual gearbox - Fill / top up

- Gearbox -
- Product used
- Manual gearbox oil - SAE 75W90
- ◆ -G 052 911 A2- - 1.0 litre





15.4 Manual gearbox - Fill / top up level

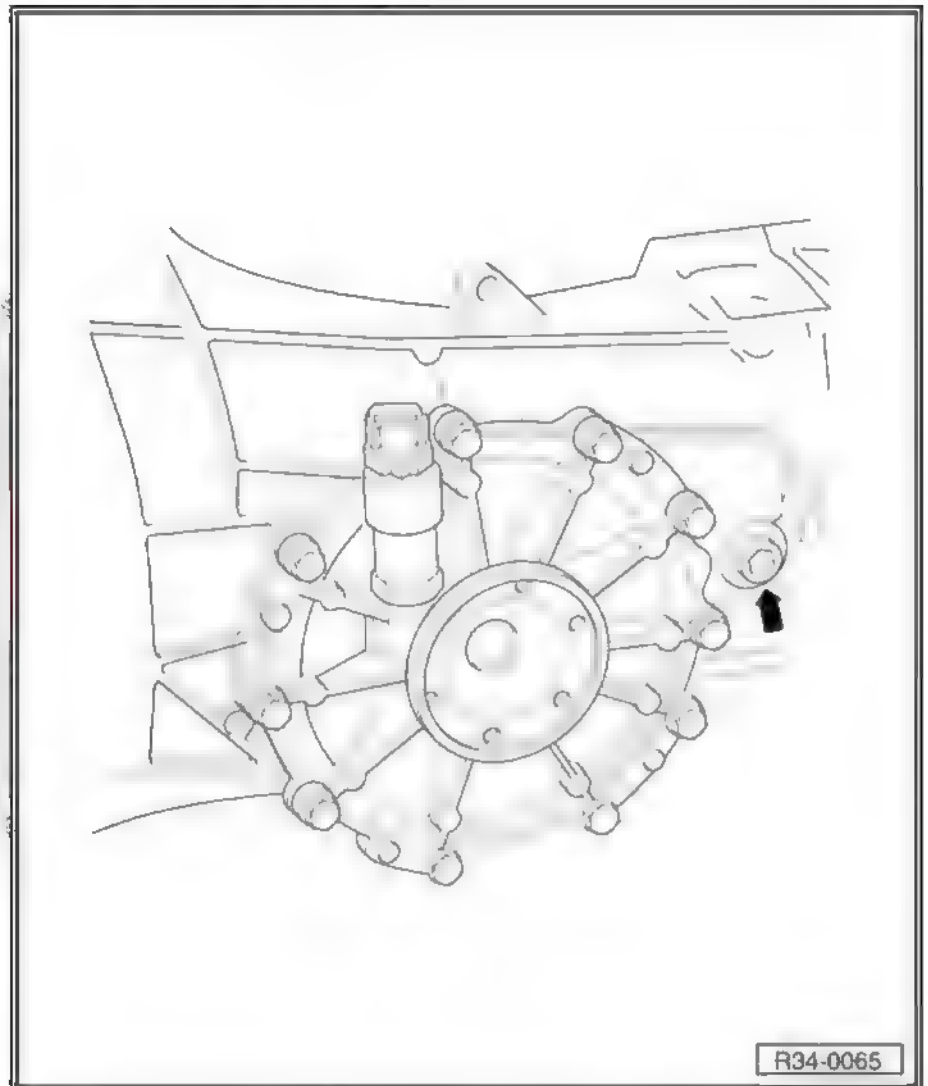
- Gearboxes 013

- For engines: 1.0 L, 1.6 L, 1.8 L, 1.9 L and 2.0 L (EA 827)

- Product used

- Oil for manual gearbox - SAE 80, MIL-L-2105 API-GL4

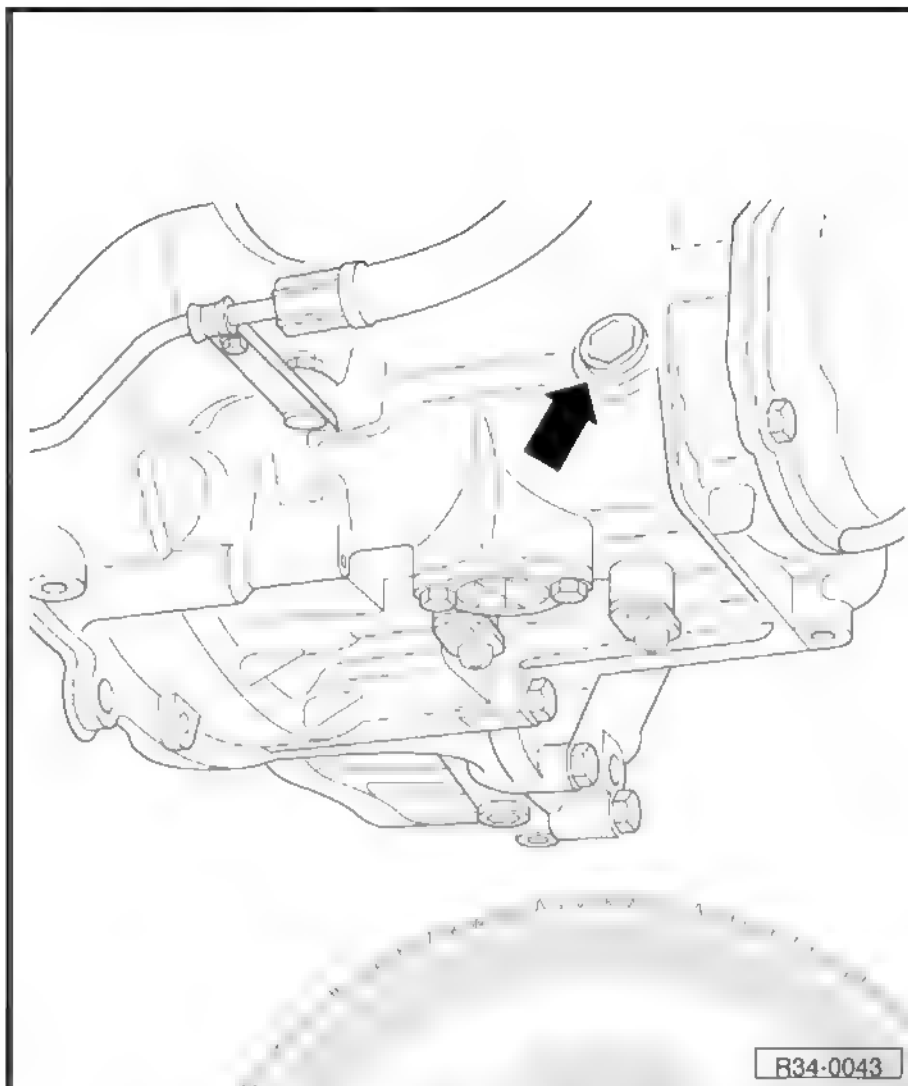
⇒ [page 13](#)





15.5 Manual Gearbox - fill / top up level

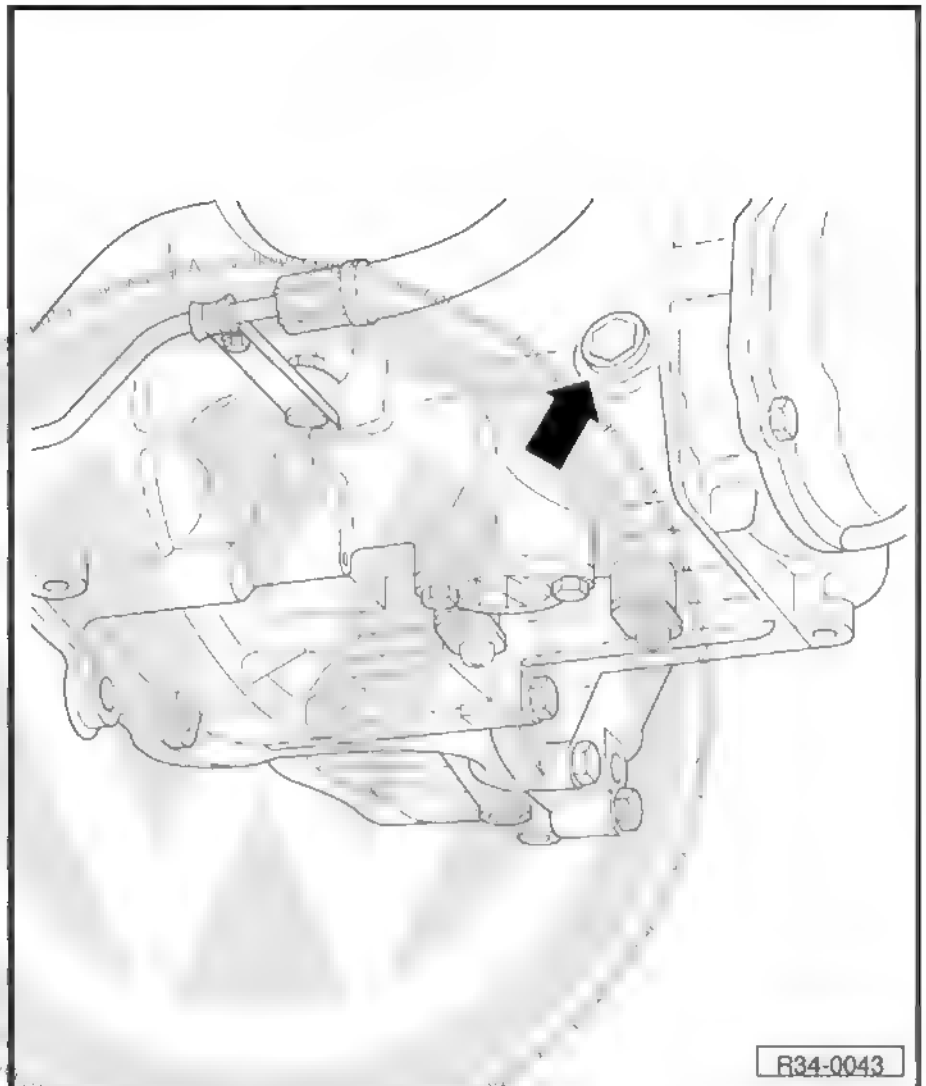
- Gearbox - MQ 250
- Product used
- Manual gearbox oil - SAE 75W90 → [page 14](#)
- ◆ -G 005 100 A1- - 1 litre
- ◆ -G 052 512 A2- - 1 litre





15.6 Manual gearbox - Fill / top up

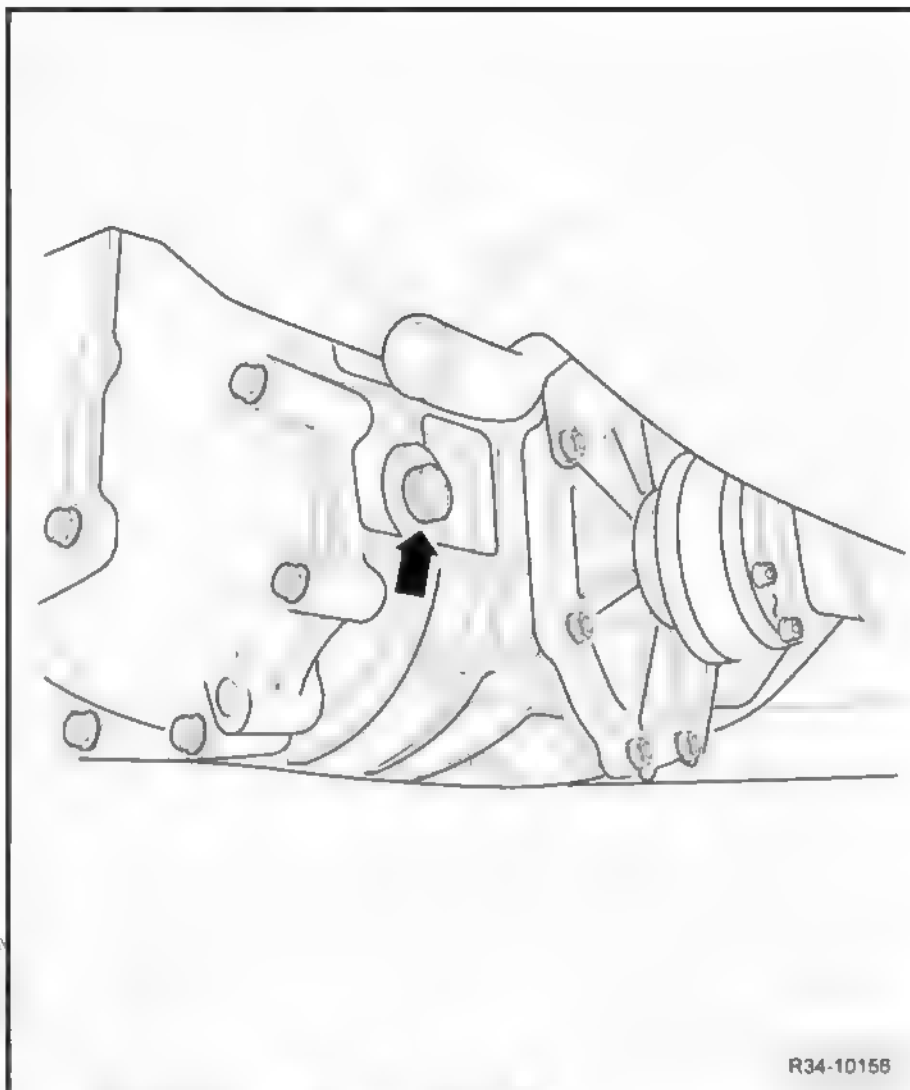
- Gearbox - MQ 200
- Product used
- Manual gearbox oil - SAE 75W90 → [page 14](#)
- ◆ -G 052 512 A2- - 1 litre





15.7 Manual Gearbox - fill / top up level

- Gearbox - 081 - Kombi
- Product used
- Lubricating oil for manual gearbox and steering box - SAE 90, MIL-L-2105B, API-GL5 ➔ [page 13](#)



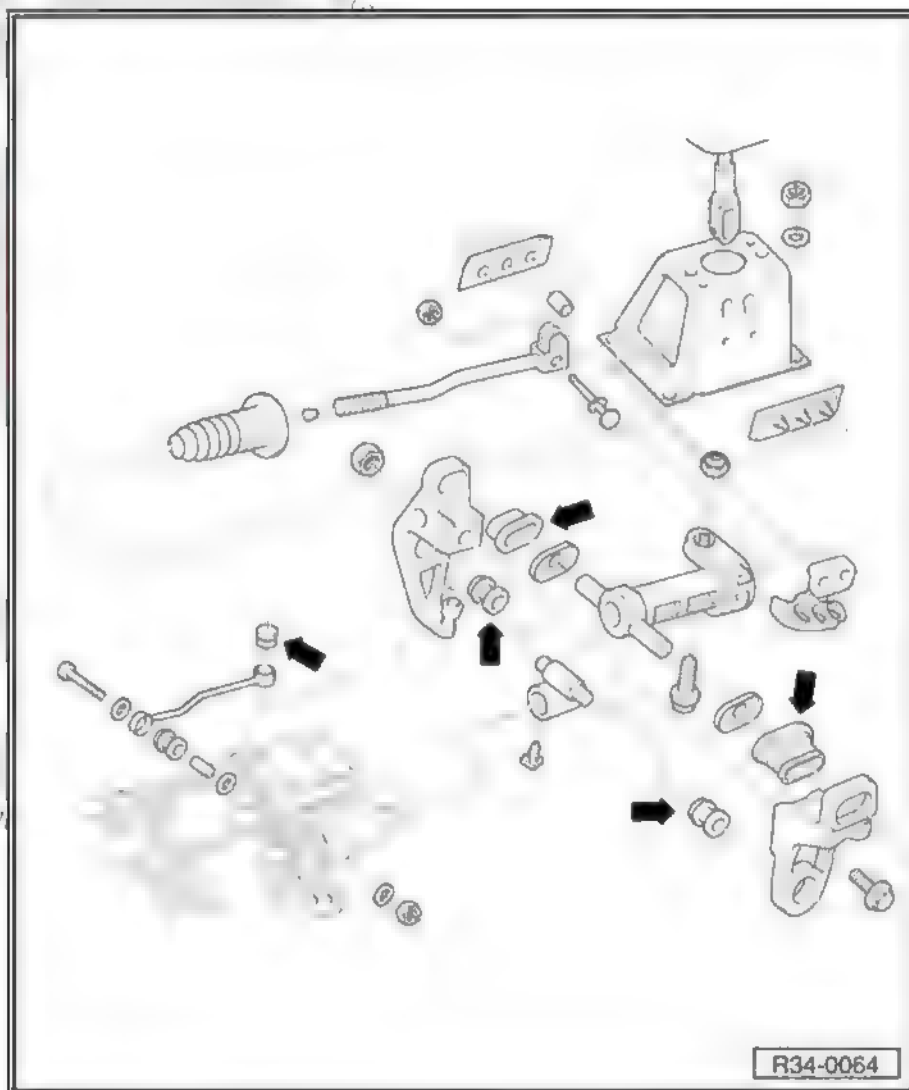


15.8 Plastic sleeves for the linkage rod coupling system / linkage rod / supports (on the gearbox) - lubricate

- Gol, Parati, Saveiro and Santana

- Product used

- Molybdenum bisulphate lubricating grease → [page 15](#)





15.9 Gear lever guide plate - lubricate

- Kombi
- Product used
- Lubricating paste for constant velocity joints → [page 11](#)



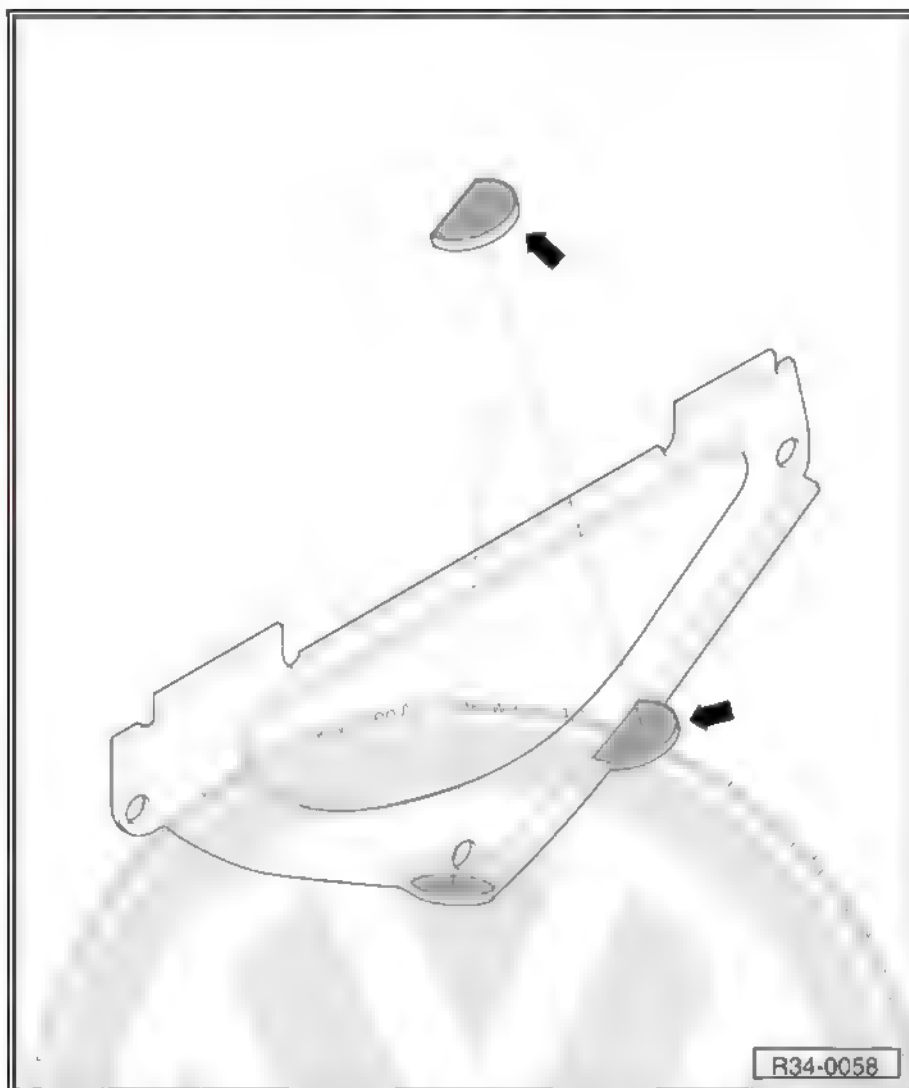


15.10 Rubber shim for the clutch compartment cover - glue

- Gol, Parati, Saveiro and Santana

- Product used

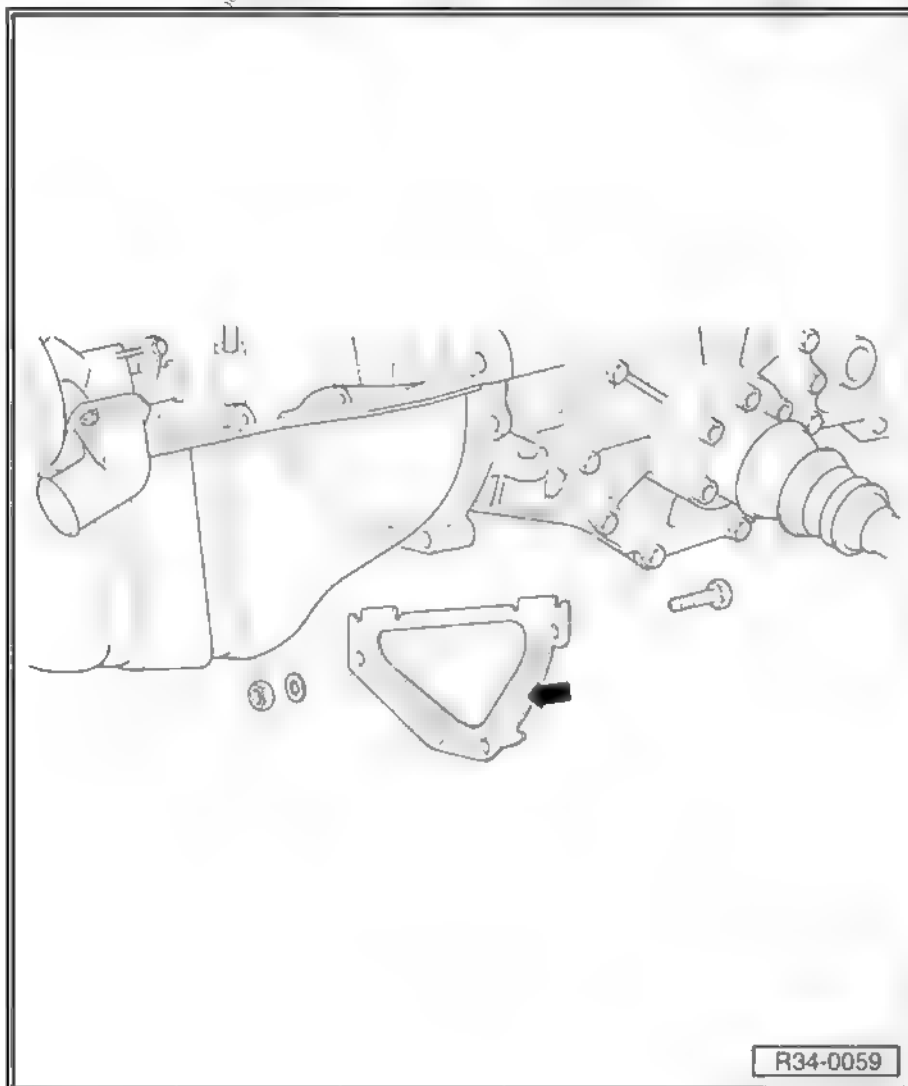
- Adhesive for finishing and lining ➔ [page 5](#)





15.11 Clutch compartment cover - seal

- Gol, Parati, Saveiro and Santana
- Product used
- Sealing compound



R34-0059

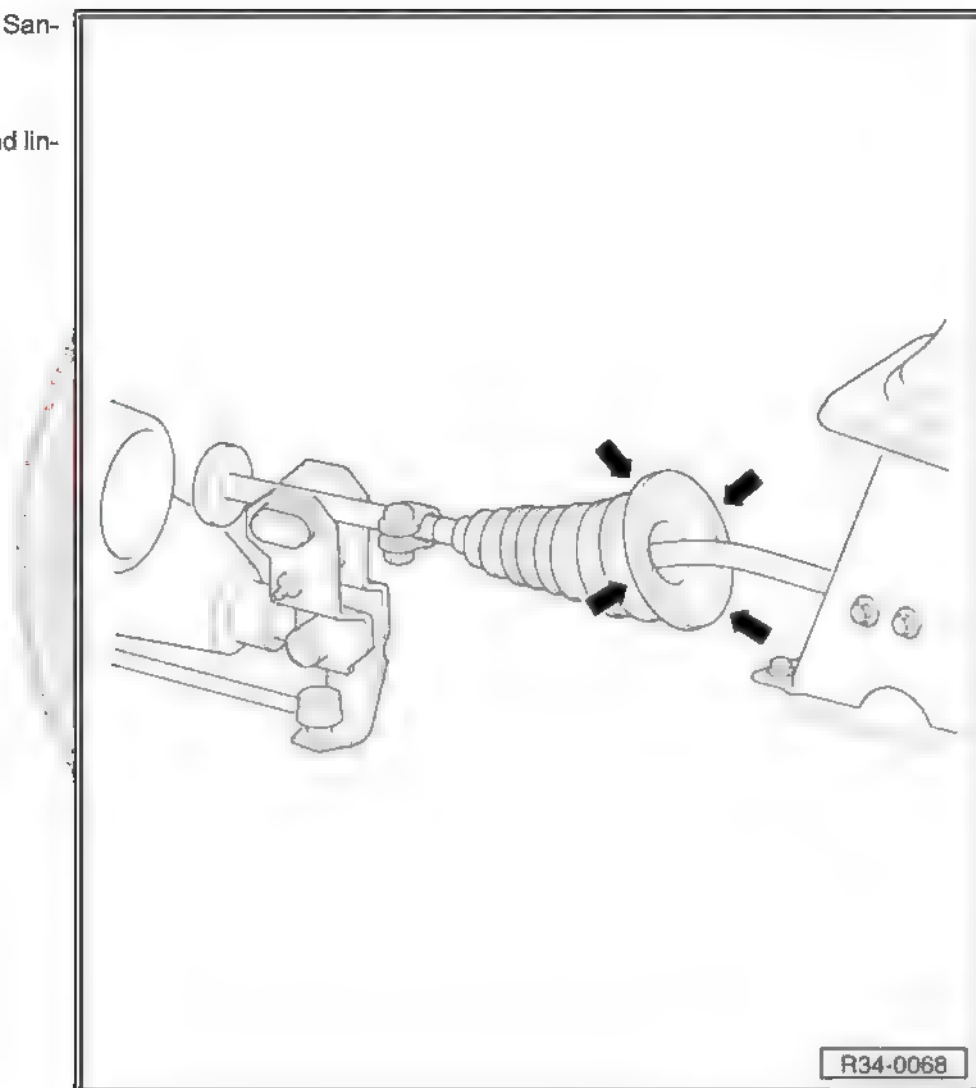


15.12 Linkage rod bellows for the gear lever assembly - fasten / seal

- Gol, Parati, Saveiro and Santana

- Product used

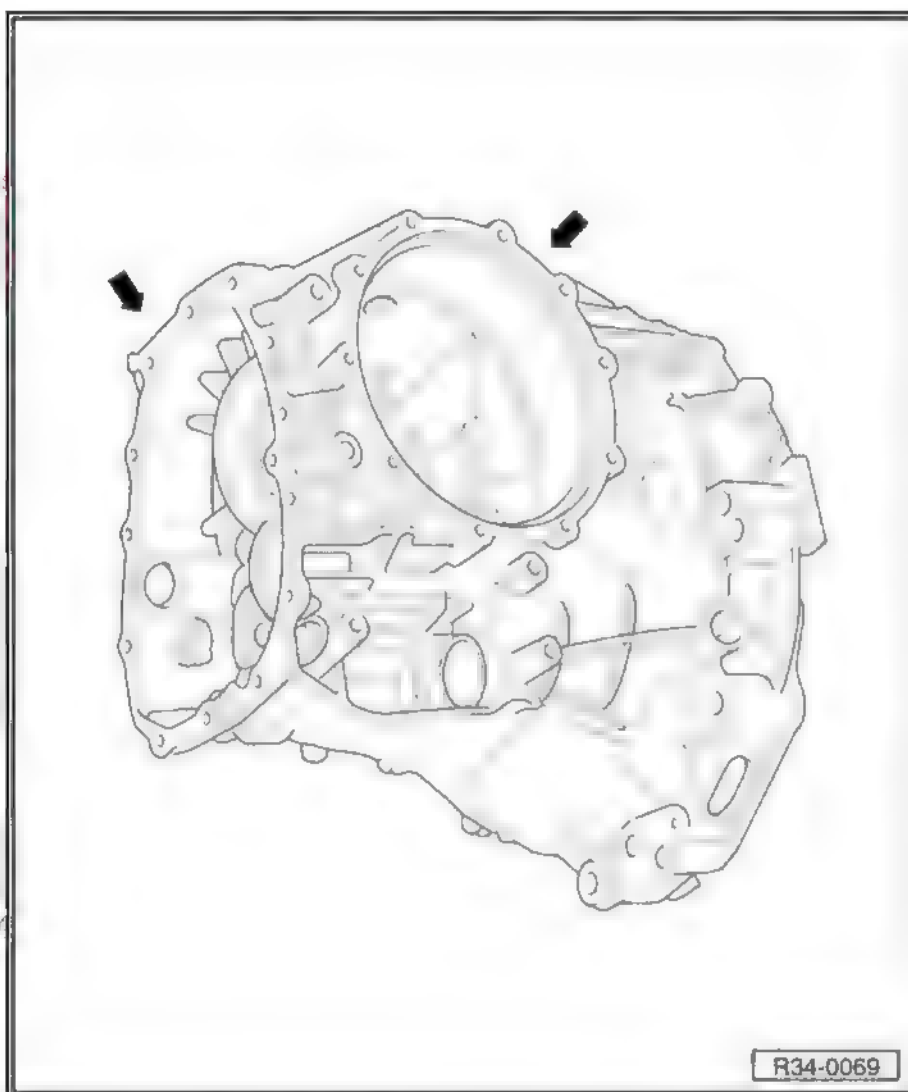
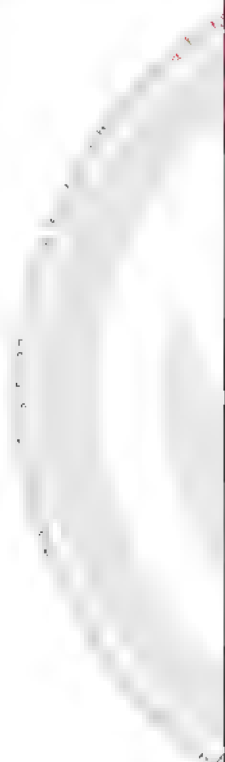
- Adhesive for finishing and lining ➔ [page 5](#)





15.13 Junction of cases and differential cover housing (transfer box / differential) - seal

- Gearbox -
- Product used
- Sealing paste → [page 11](#)

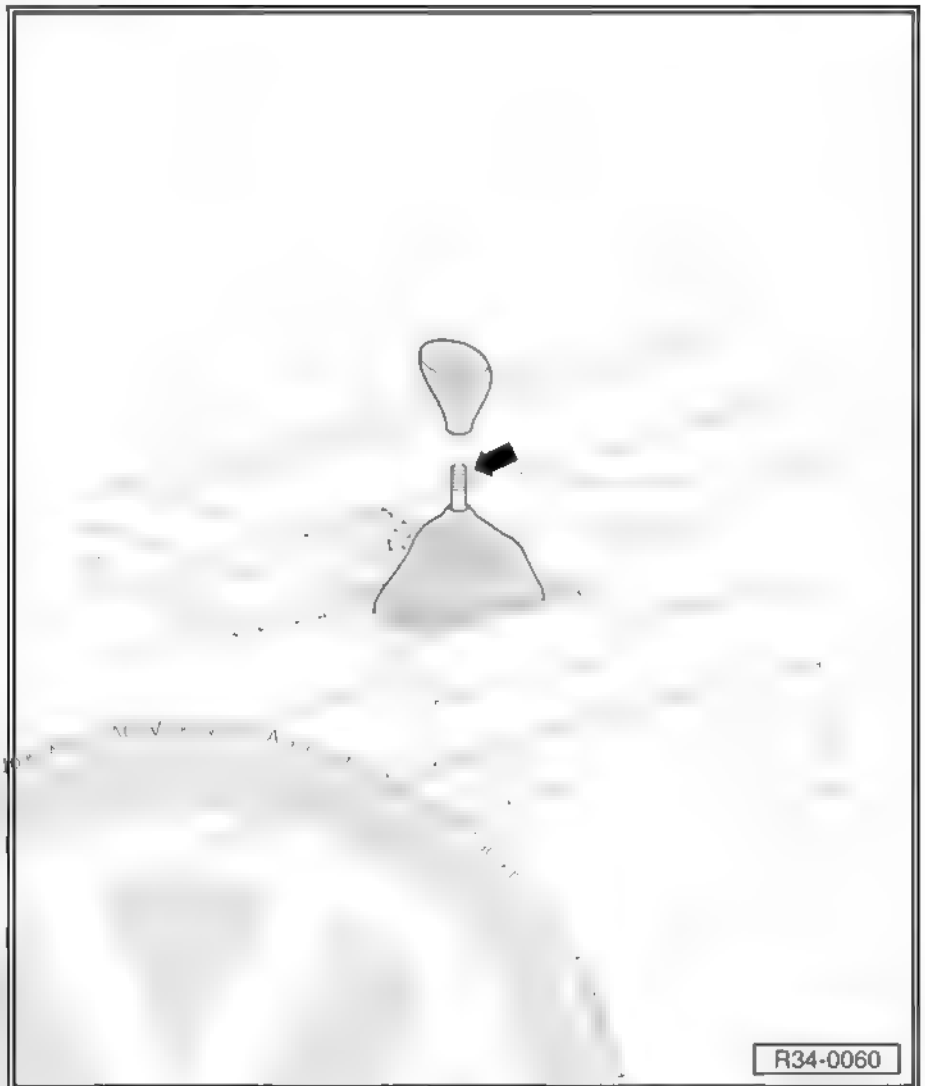


R34-0069



15.14 Gear lever handle - fasten

- Gol, Parati, Saveiro and Santana
- Product used
- Instant adhesive



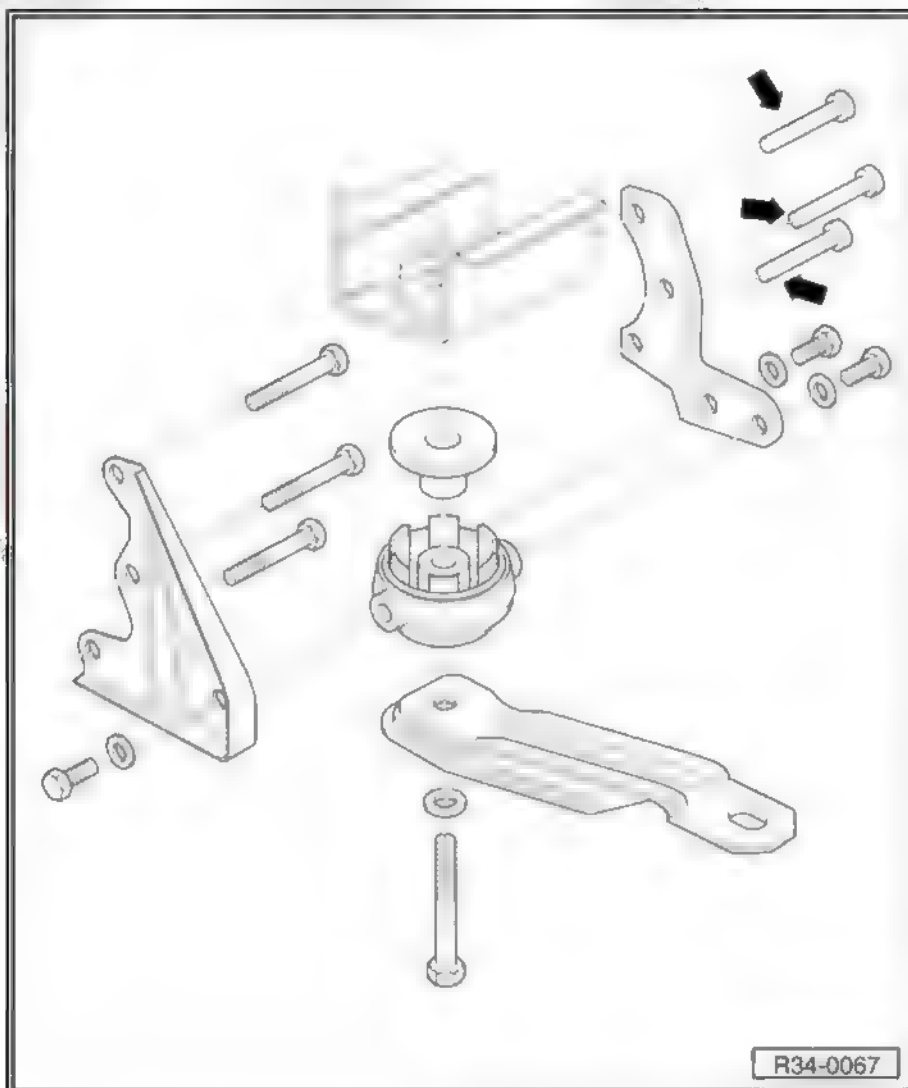


15.15 Fastening screw for the rear support of the gearbox cushion - seal

- Gol, Parati, Saveiro and Santana

- Product used

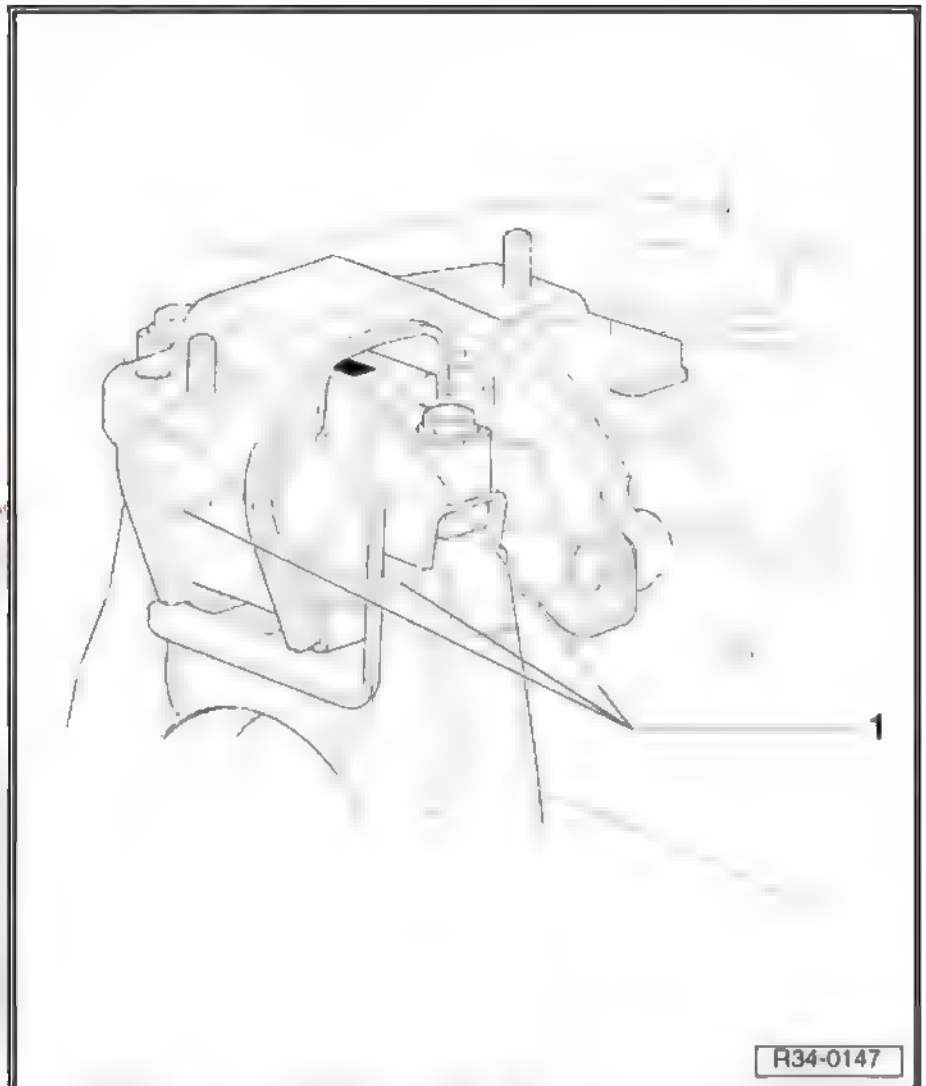
- Low viscosity lock adhesive
⇒ [page 6](#)





15.16 Gearbox cushion - lubricate

- Mechanical gearbox
- ◆ For Fox and Polo
- Product used
- Silicone based grease
- ⇒ [page 10](#)





15.17 Gear selection mechanism - fill up

- Gearbox - SQ 200

- Product used

- Oil for gear selection mechanism → [page 15](#)

◆ -G 052 512 S1- - 1 litre





15.18 Electric connectors of the gear selection mechanism - apply Nyogel

- Gearbox - SQ 200
- Product used
- Nyogel → [page 11](#)
- -G 052 817 A1-



R34-10109



16 Repair Group 35 - Gears and shafts



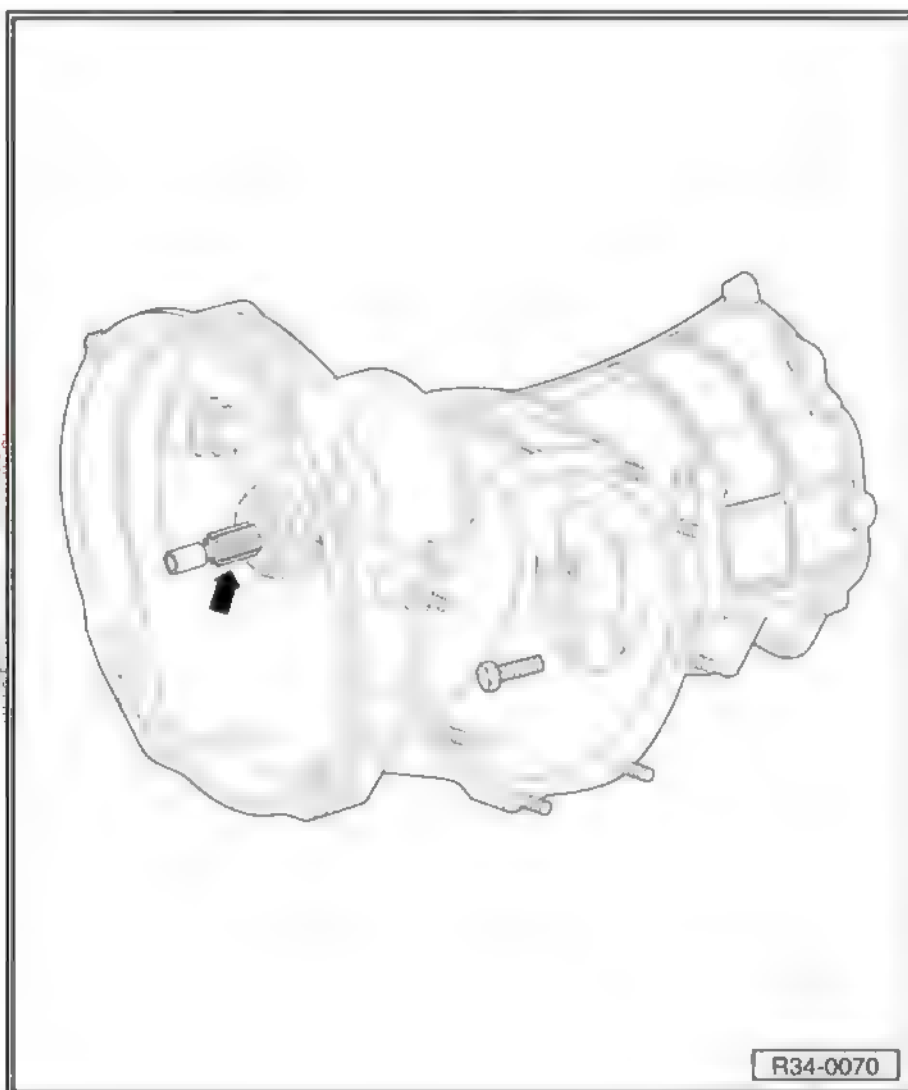
WARNING

Check the regulations on the disposal of each product and packaging as per manufacturer's guidelines and current legislation at local, state and federal level.

Observe the information in Chapter "Work Instructions for Handling Chemicals" ⇒ [page 18](#)

16.1 Input shaft splines - lubricate

- Gearbox -
- Product used
- Multi-purpose grease
⇒ [page 8](#)





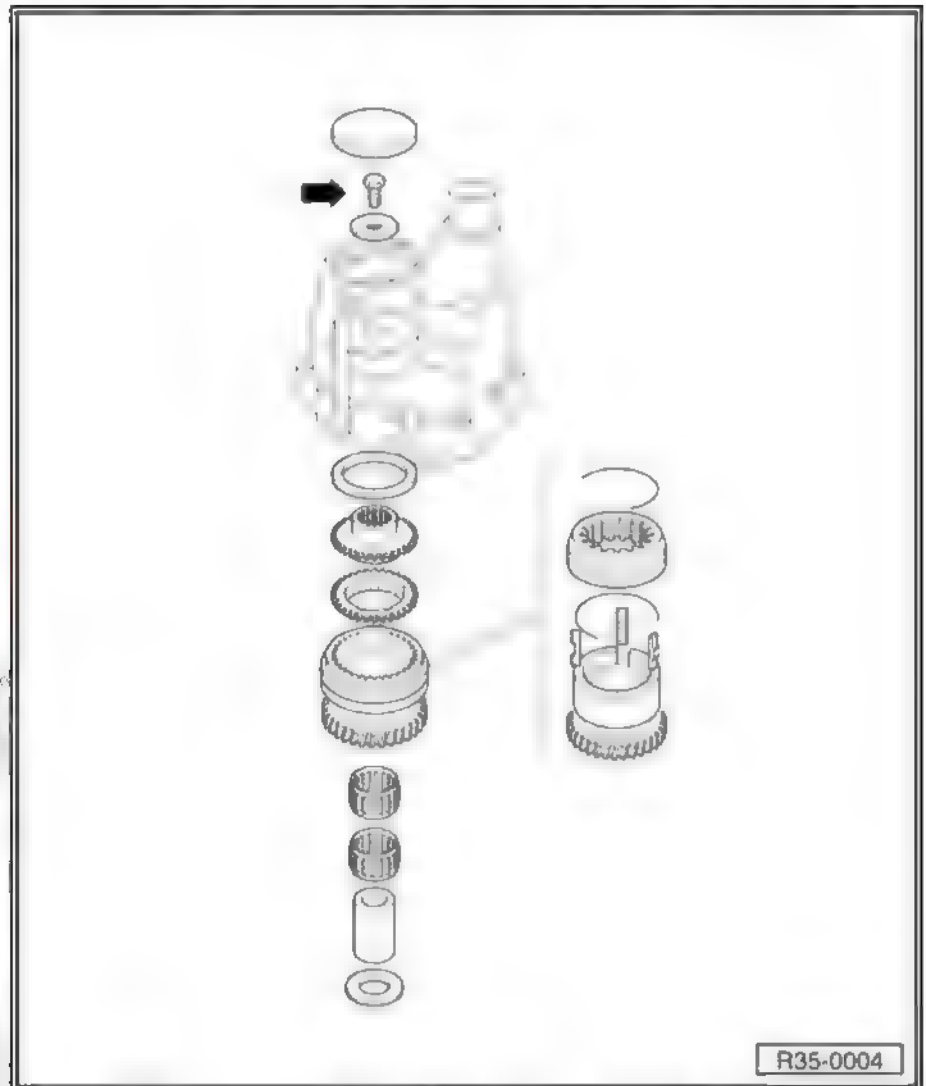
16.2 Securing bolt of the 5th gear / synchronizing hub assembly - lock

- Gearboxes -

- ☐ 013 - 1.0 L
- ☐ 013 - 1.6 L, 1.8 L and 2.0 L

- Product used

- Low viscosity lock adhesive
⇒ [page 6](#)





17 Repair Group - 37 - Drive, housing



WARNING

Check the regulations on the disposal of each product and packaging as per manufacturer's guidelines and current legislation at local, state and federal level.

Observe the information in Chapter "Work Instructions for Handling Chemicals" ⇒ [page 18](#)

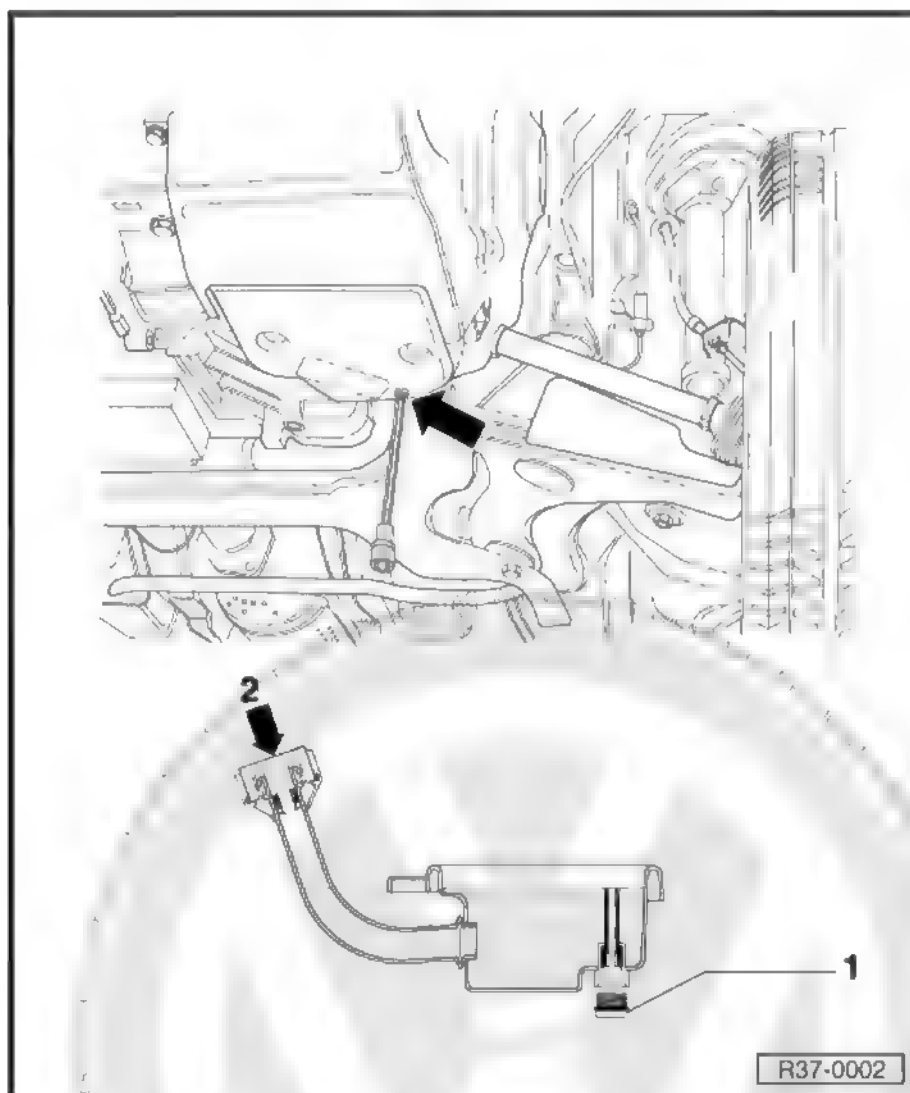
17.1 Planetary gear box (automatic gearbox) - fill / top up oil level

- Gearboxes

- Product used

- ATF oil for automatic gearbox
⇒ [page 15](#)

◆ -G 052 162 A2- - 1.0 litre





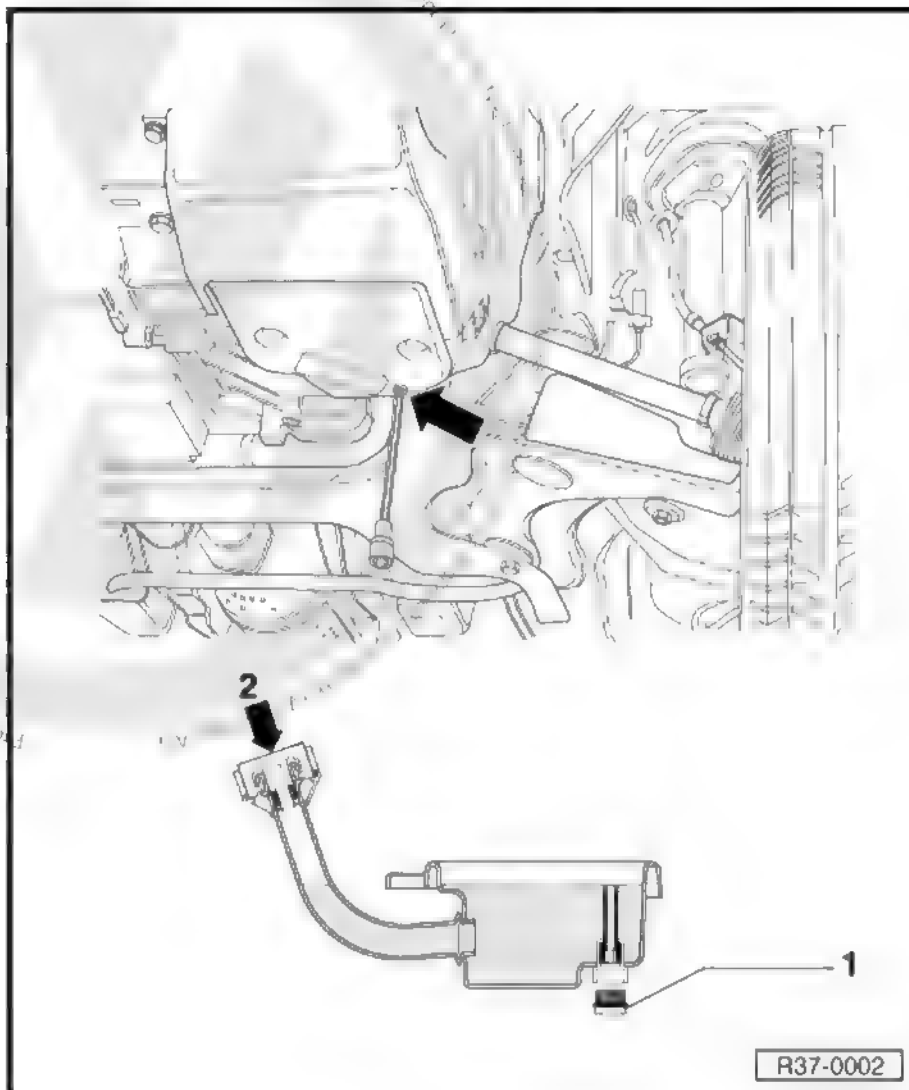
17.2 Planetary gear box (automatic gearbox) - fill / top up oil level

- Gearboxes

- Product used

- ATF oil for automatic gearbox
⇒ [page 15](#)

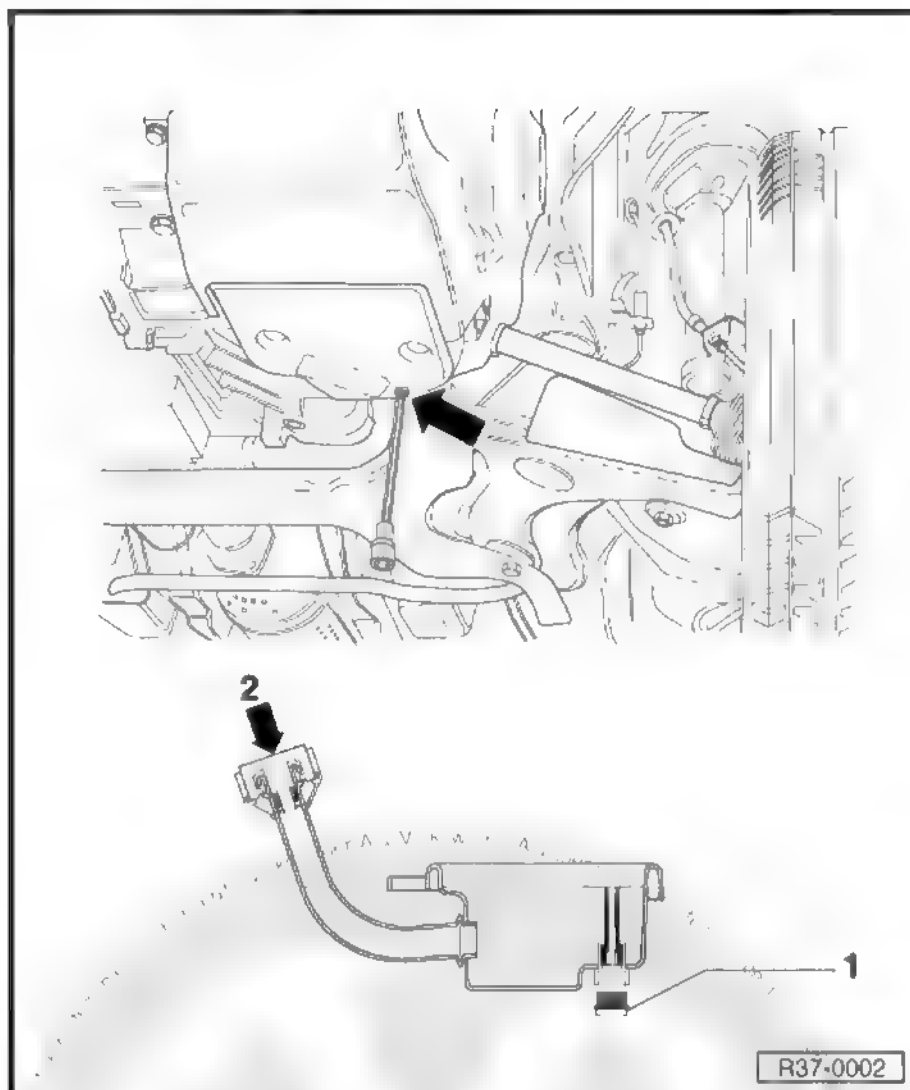
◆ G 052 990 A2- - 1.0 litre





17.3 Planetary gear box (automatic gearbox) - fill / top up oil level

- Gearboxes - 09G
- Product used
- ATF oil for automatic gear-boxes
- ◆ -G 055 025 A2- - 1.0 litre





18 Repair Group - 39 - Gearbox shafts, differential



WARNING

Check the regulations on the disposal of each product and packaging as per manufacturer's guidelines and current legislation at local, state and federal level.

Observe the information in Chapter "Work Instructions for Handling Chemicals" ➔ [page 18](#)

18.1 Gearbox side seals - lubricate

- Gearboxes -

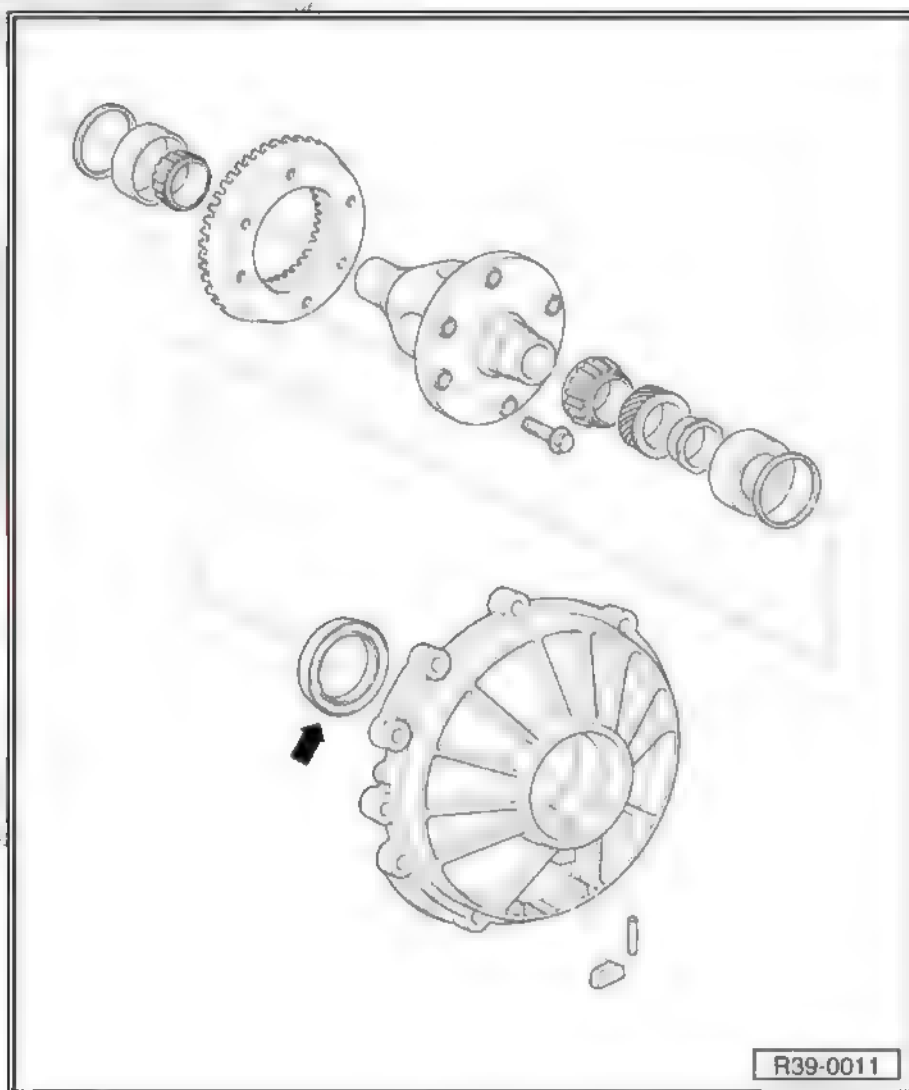
013 - 1.0 L

013 - 1.6 L, 1.8 L and 2.0 L

081

- Product used

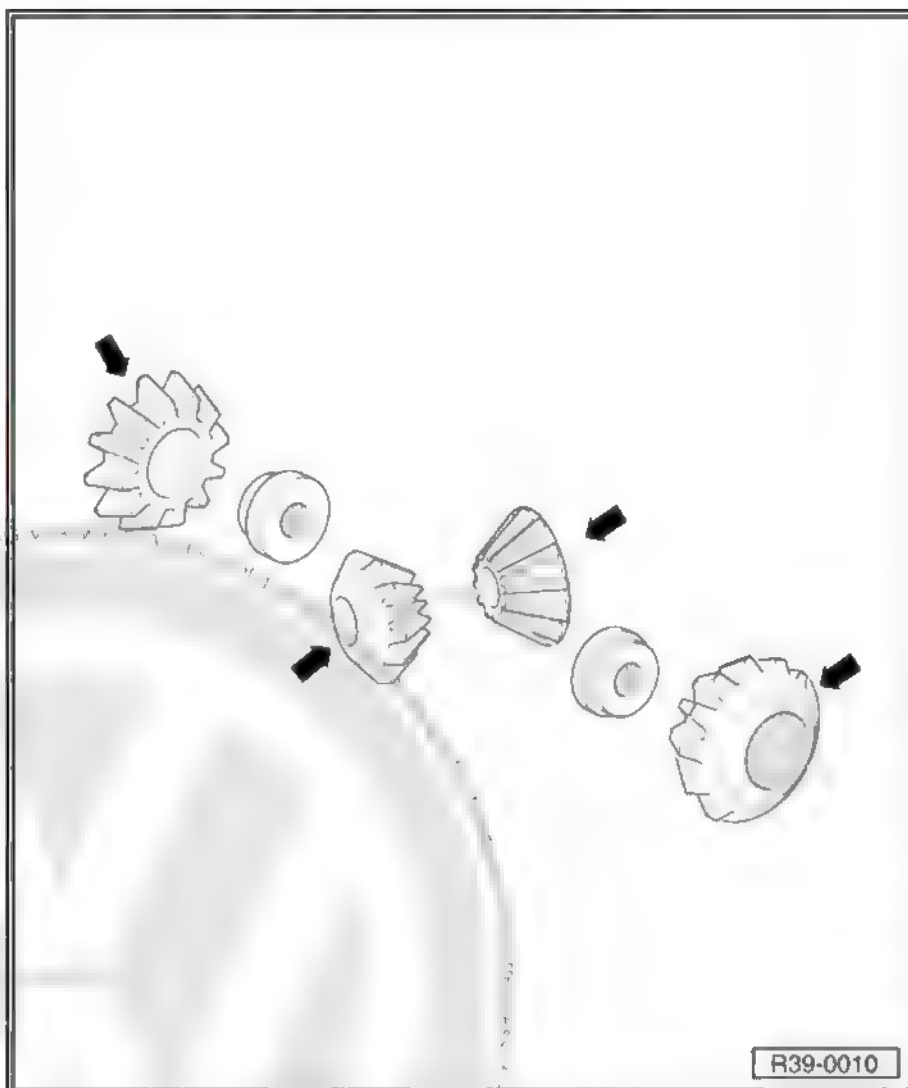
- Grease for gearbox side seals ➔ [page 9](#)





18.2 Planetary and satellite gears - lubricate for assembly

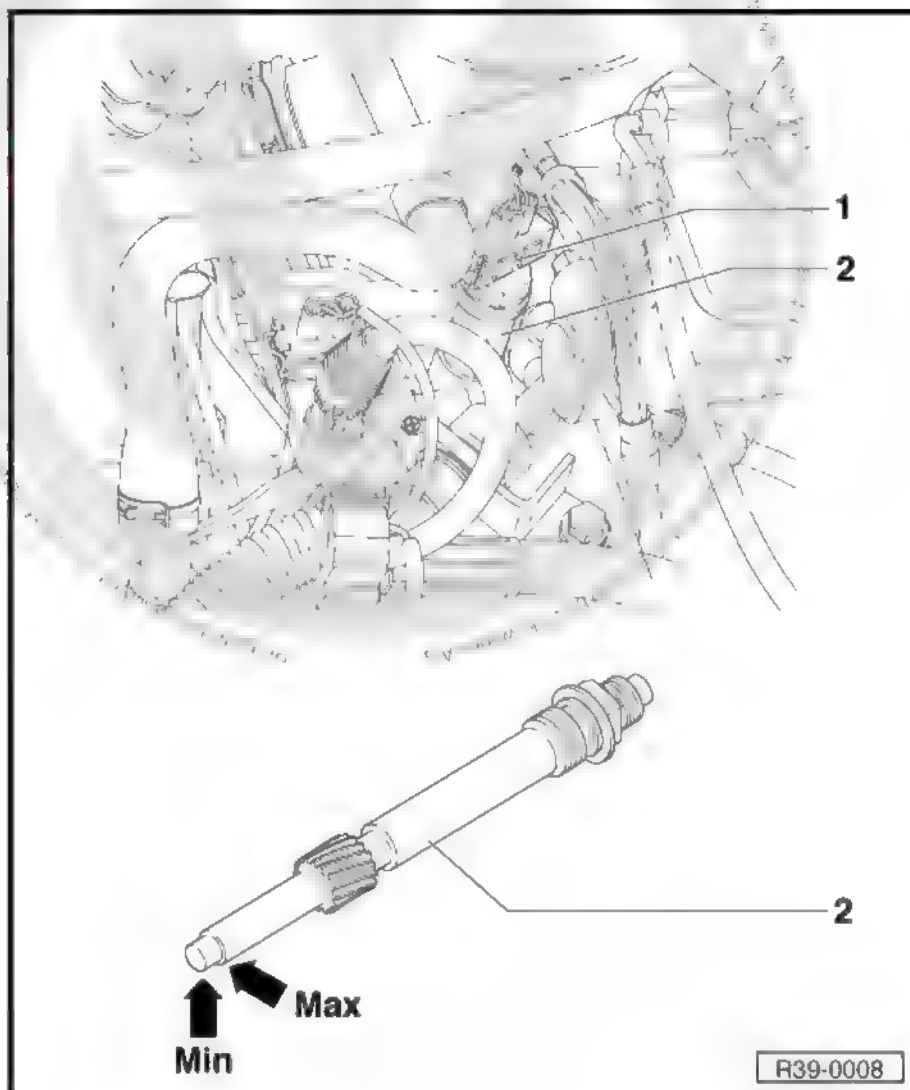
- Gearbox
 - Product used
 - Multi-purpose grease
- ➔ [page 8](#)





18.3 Automatic gearbox differential - top up oil level

- Gearboxes - 01M
- Product used
- Automatic gearbox differential oil SAE 75W90 → [page 14](#)
- ◆ -G 052 145 S2- - 1.0 litre





18.4 Differential cover with gearbox housing - seal

- Gearboxes -

012 - 2.0 16v

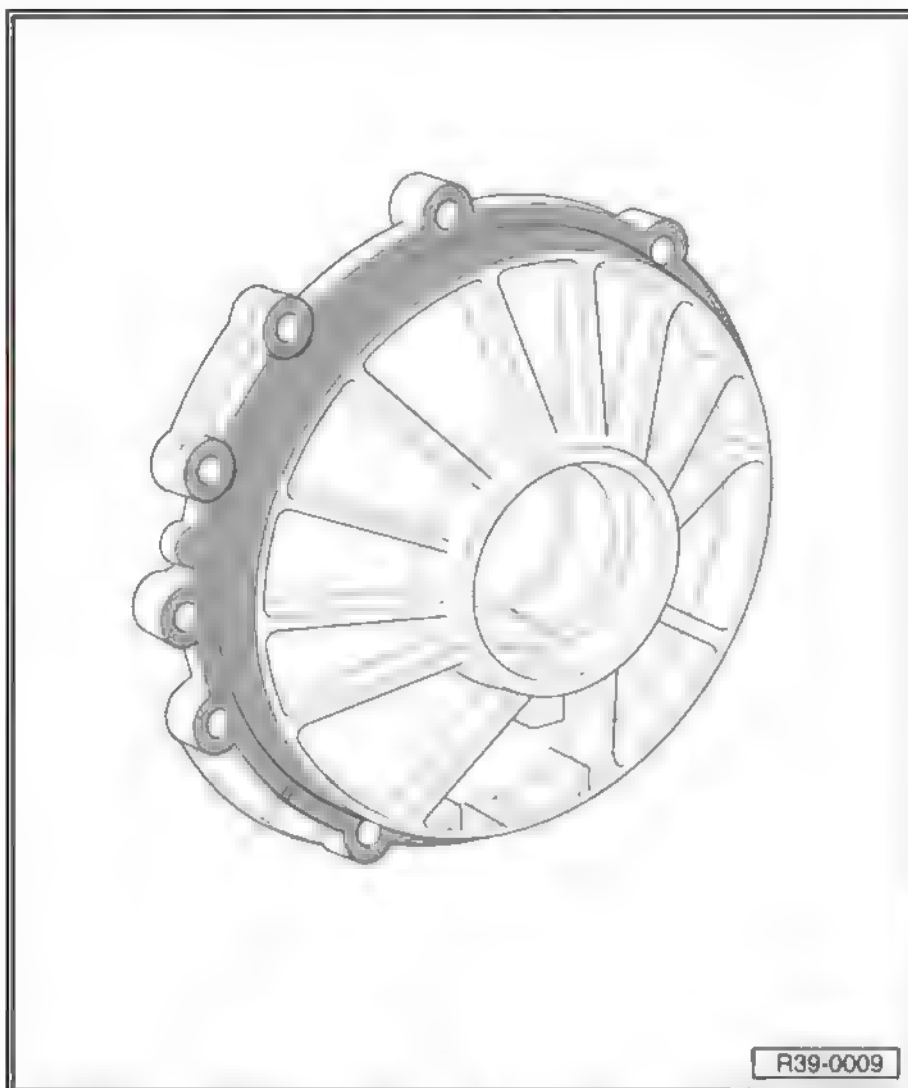
013 - 1.0 L

013 - 1.6 L, 1.8 L and 2.0 L

081

- Authorized product

- Sealing adhesive ⇒ [page 6](#)





19 Repair Group - 40 - Front suspension



WARNING

Check the regulations on the disposal of each product and packaging as per manufacturer's guidelines and current legislation at local, state and federal level.

Observe the information in Chapter "Work Instructions for Handling Chemicals" ➔ [page 18](#)

19.1 Constant velocity joint spline - lubricate

- Gol, Parati, Saveiro and Santana

- Product used

- Lubricating paste for constant velocity joints ➔ [page 11](#)



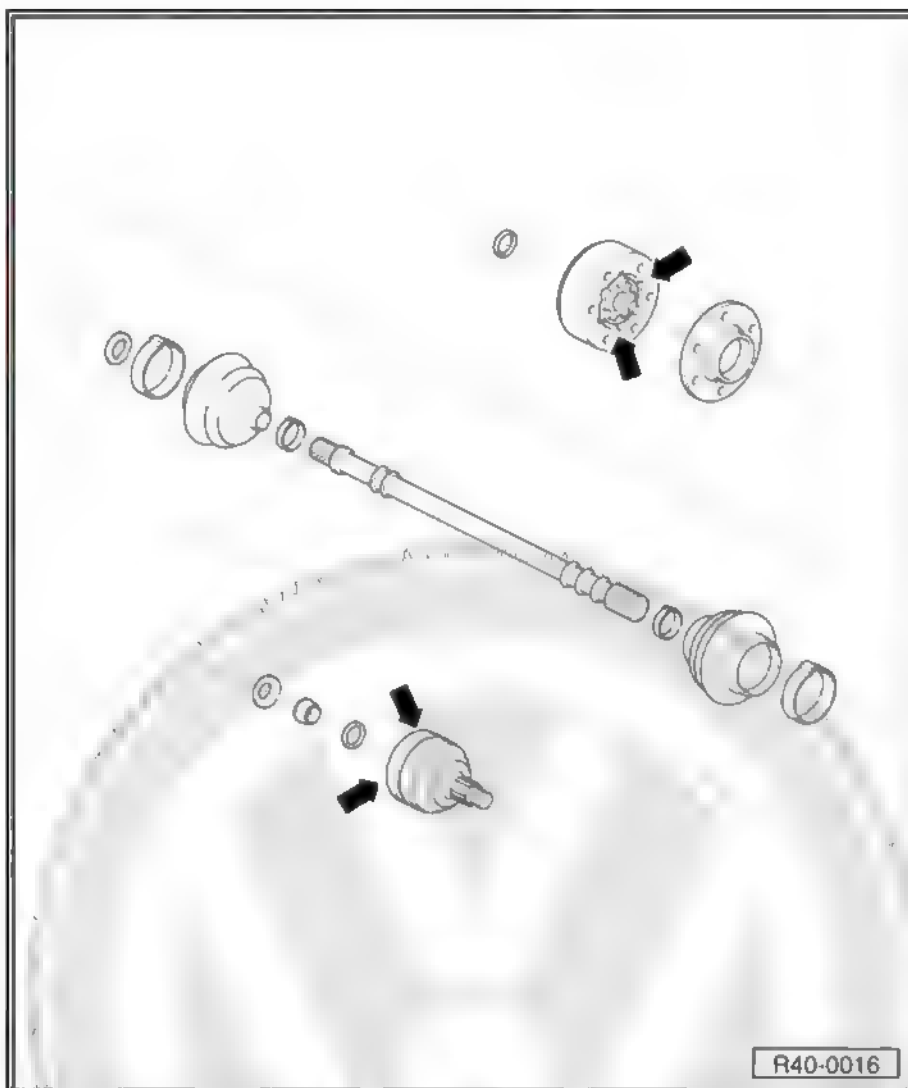


19.2 Inner and outer constant velocity joint - lubricate

- Gol, Parati, Saveiro and Santana

- Product used

- Lubricating paste for constant velocity joints → [page 11](#)





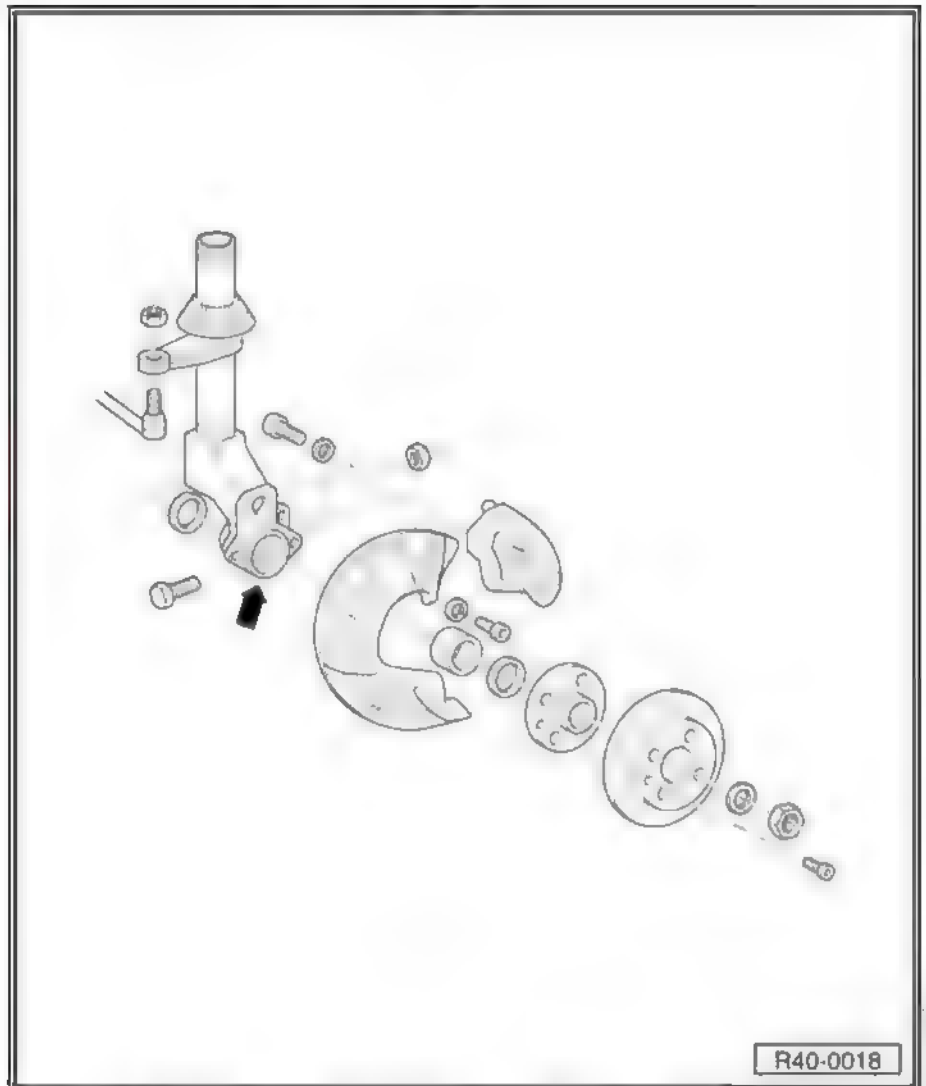
19.3 Front wheel bearing mounting - lubricate

- Gol, Parati, Saveiro and Santana

- Product used

- White lubricating grease

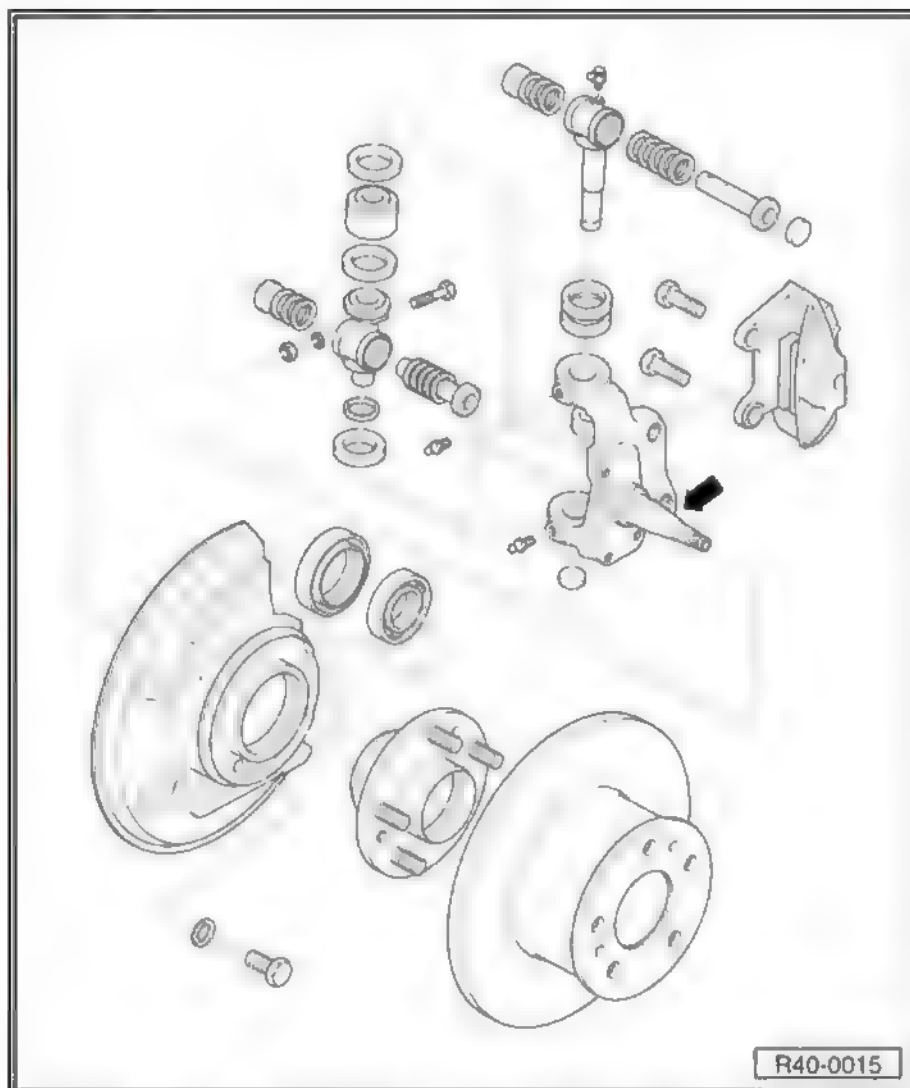
⇒ [page 15](#)





19.4 Axle end - lubricate

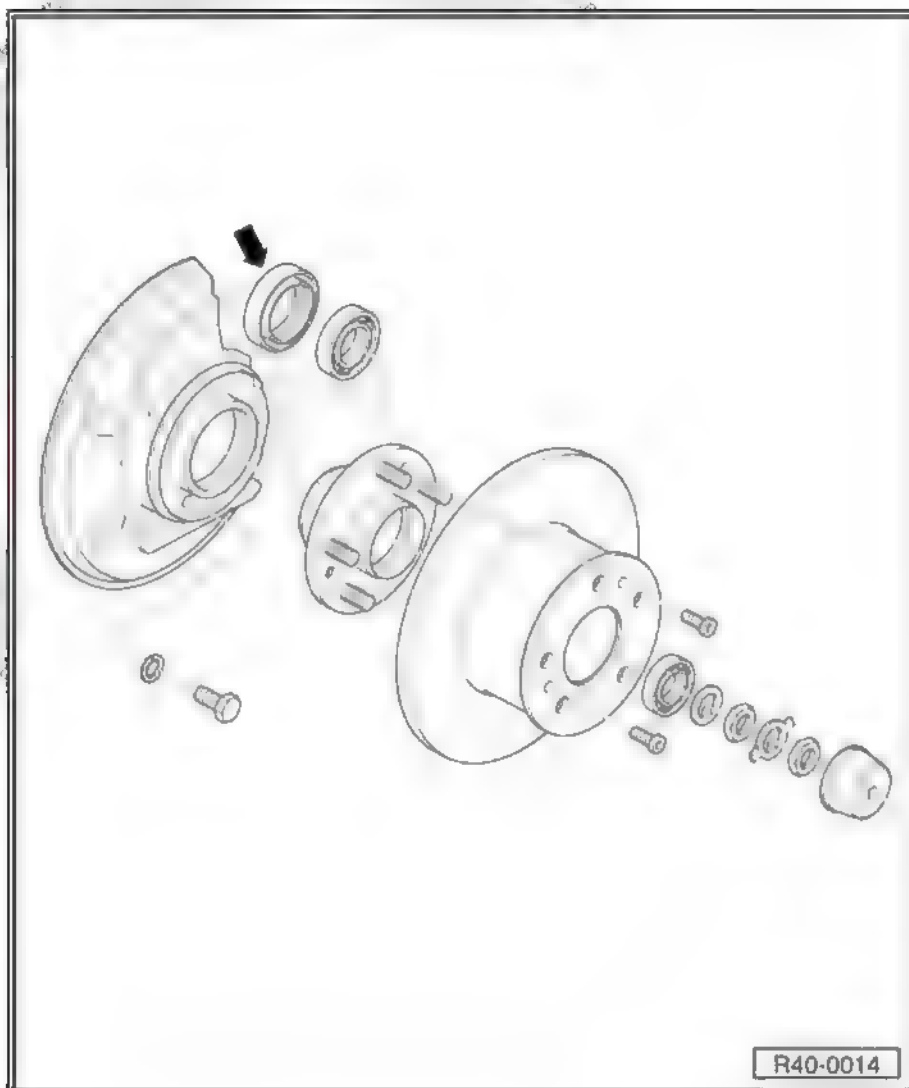
- Kombi
- Product used
- Multi-purpose grease
→ [page 8](#)





19.4.1 Front wheel hub seal - lubricate

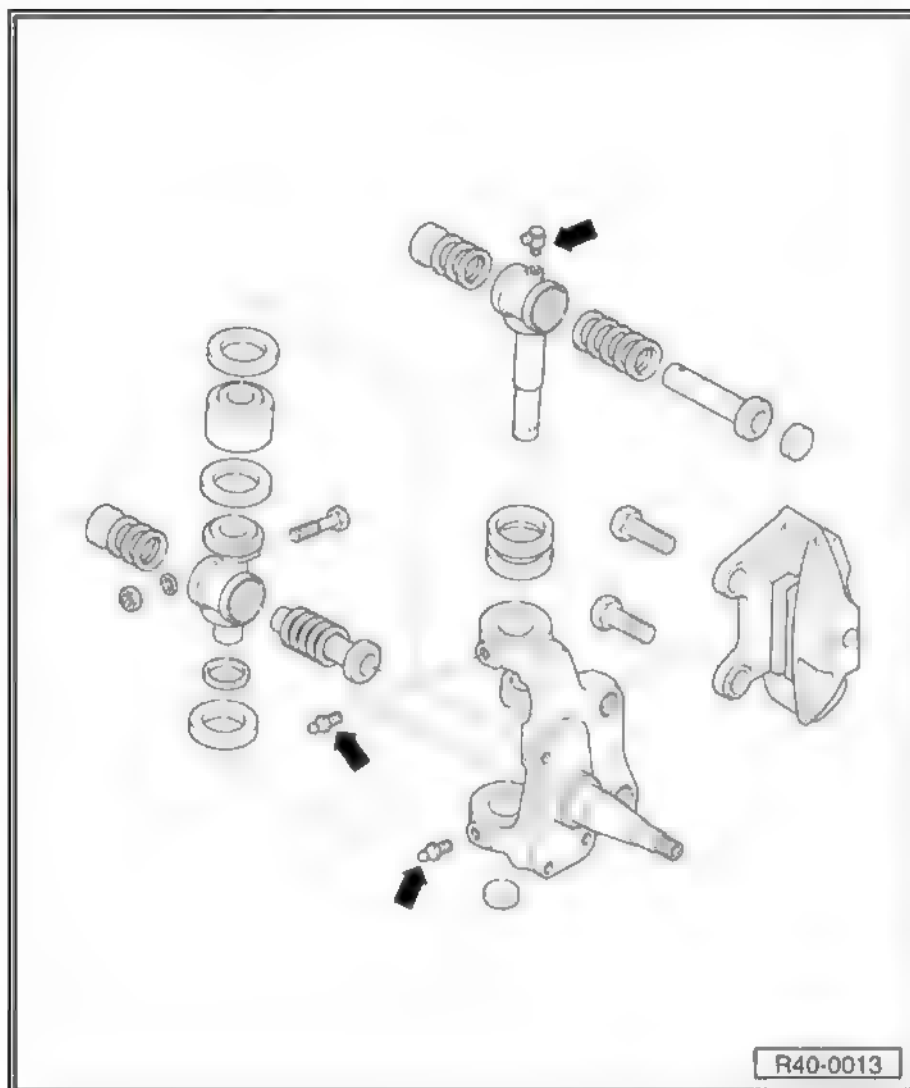
- Kombi
- Product used
- Multi-purpose grease
→ [page 8](#)





19.4.2 King pin bearing - lubricate

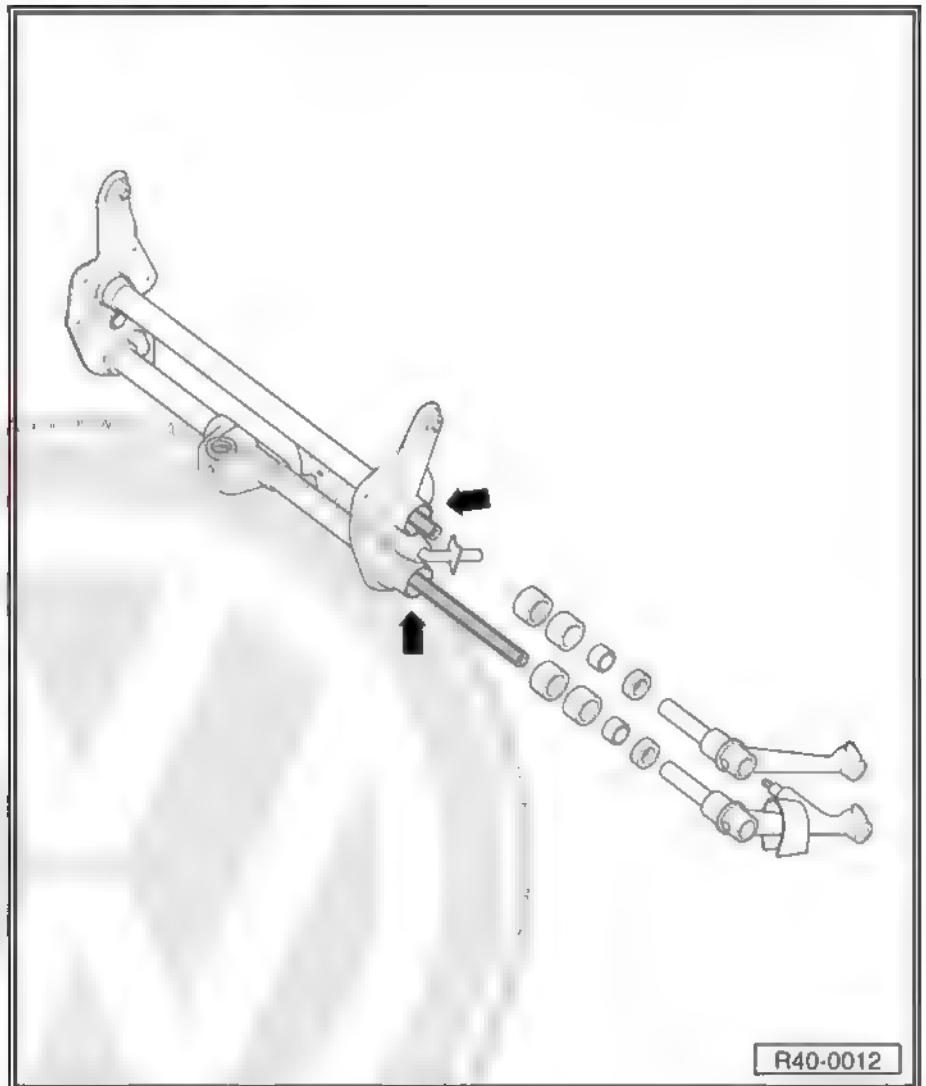
- Kombi
 - Product used
 - Multi-purpose grease
- [page 8](#)





19.4.3 Front axle beam - lubricate

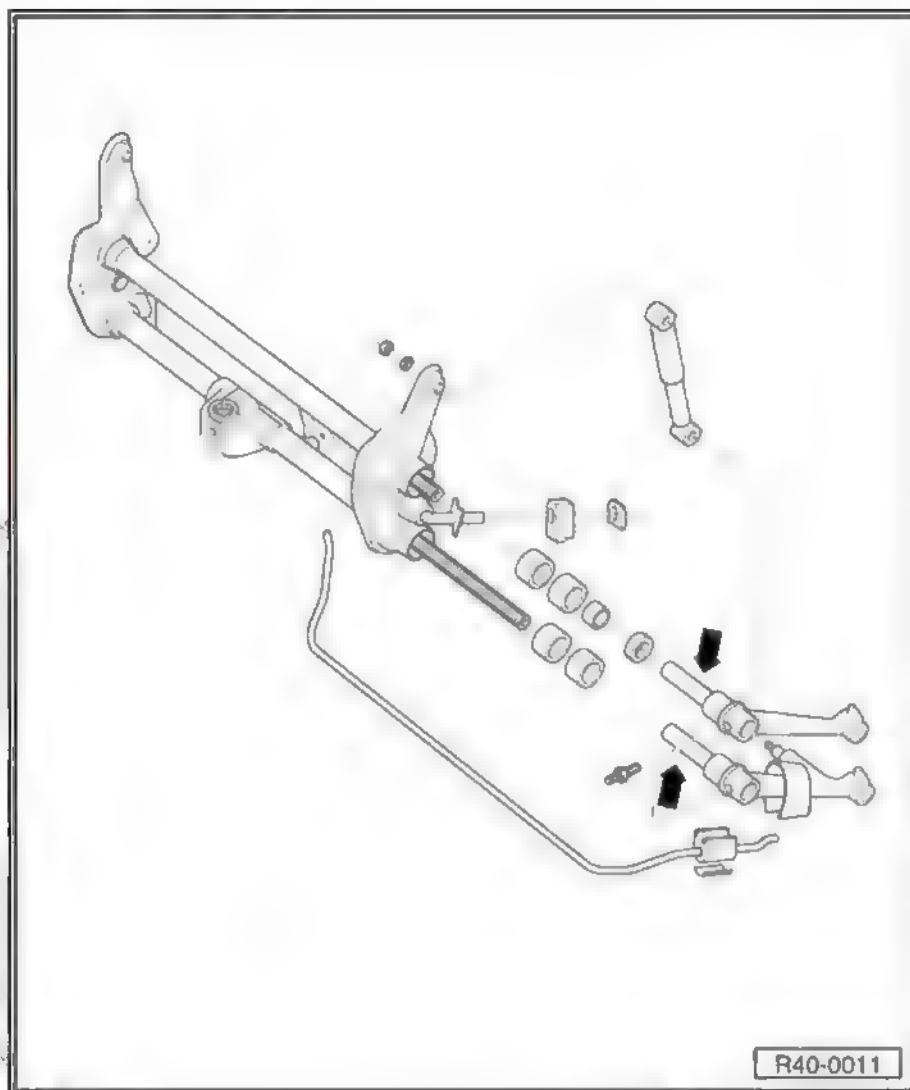
- Kombi
- Product used
- Multi-purpose grease
- [page 8](#)





19.4.4 Suspension arms - lubricate

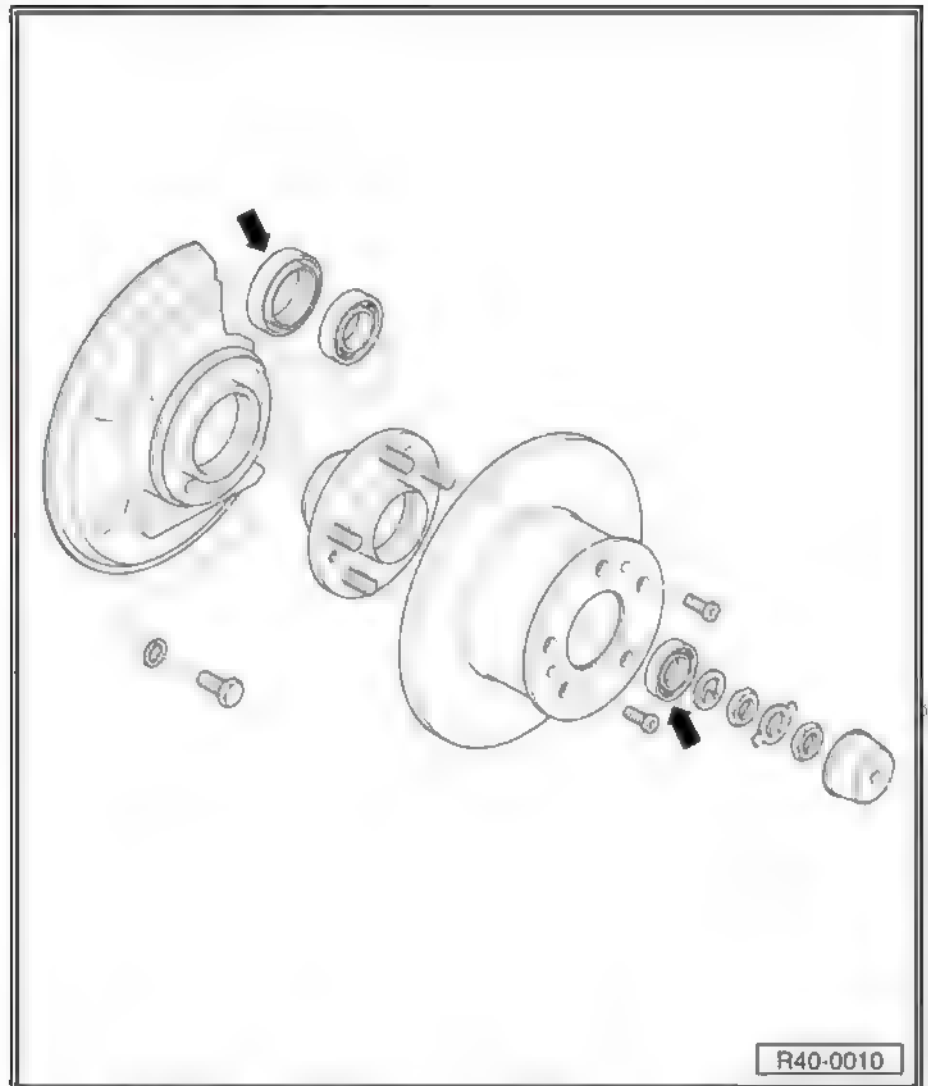
- Kombi
 - Product used
 - Multi-purpose grease
- [page 8](#)





19.4.5 Front wheel bearing - lubricate

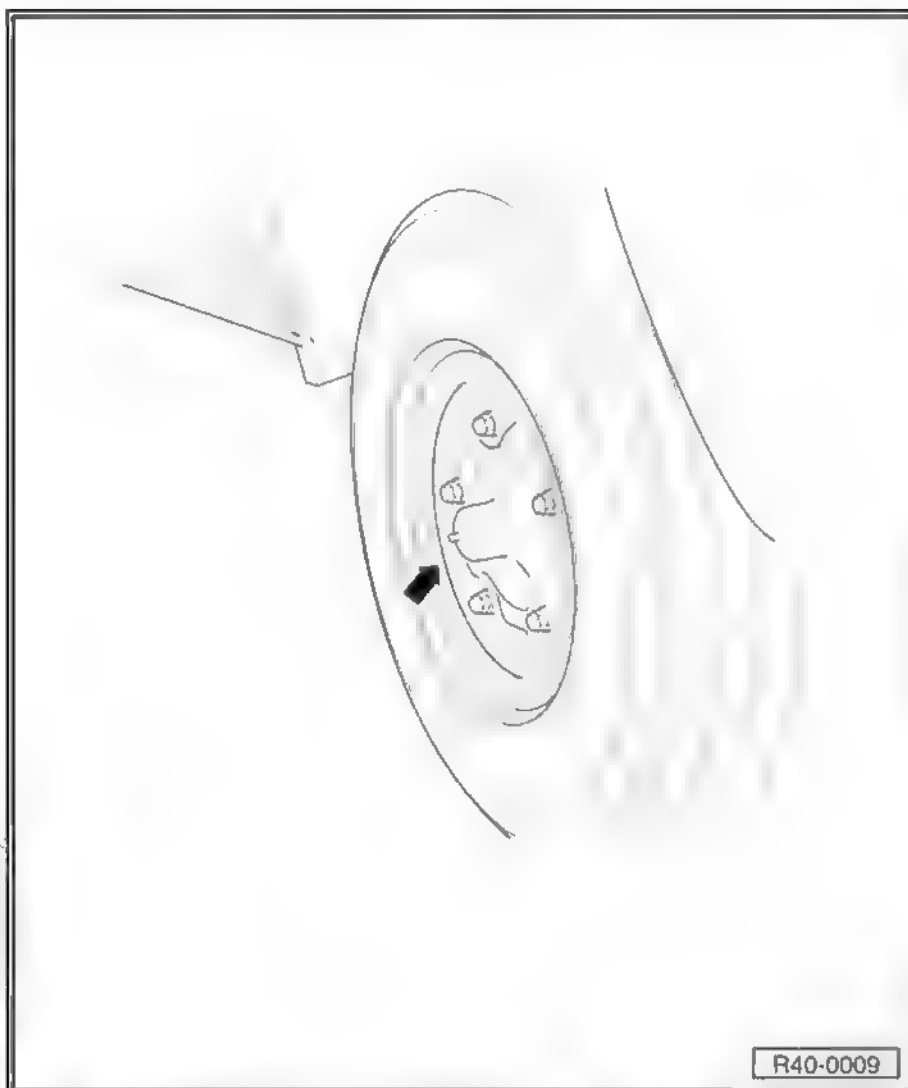
- Kombi
- Product used
- Multi-purpose grease
→ [page 8](#)





19.4.6 Passage hole for the speedometer cable in the wheel hub protector - seal

- Kombi
- Product used
- Sealing compound - MKD
106 007 40-





20 Repair Group - 42 - Rear suspension



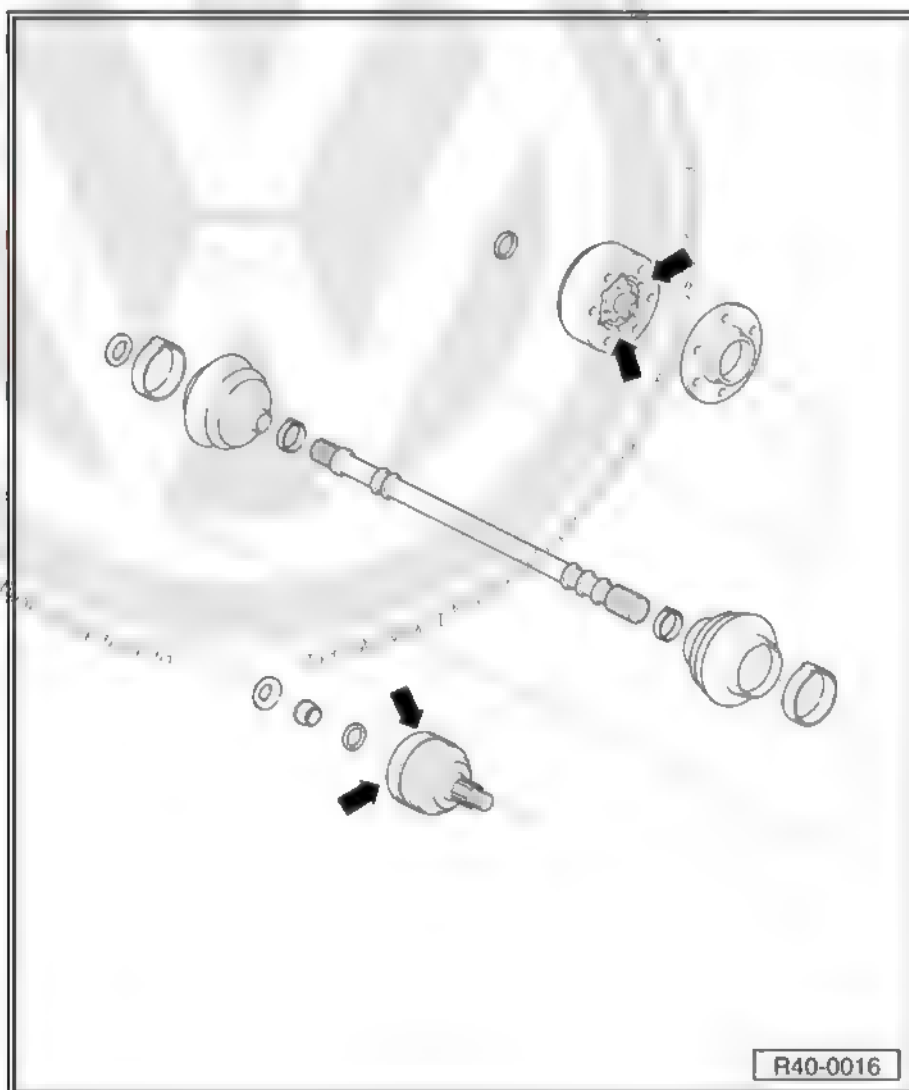
WARNING

Check the regulations on the disposal of each product and packaging as per manufacturer's guidelines and current legislation at local, state and federal level.

Observe the information in Chapter "Work Instructions for Handling Chemicals" ➔ [page 18](#)

20.1 Inner and outer constant velocity joint - lubricate

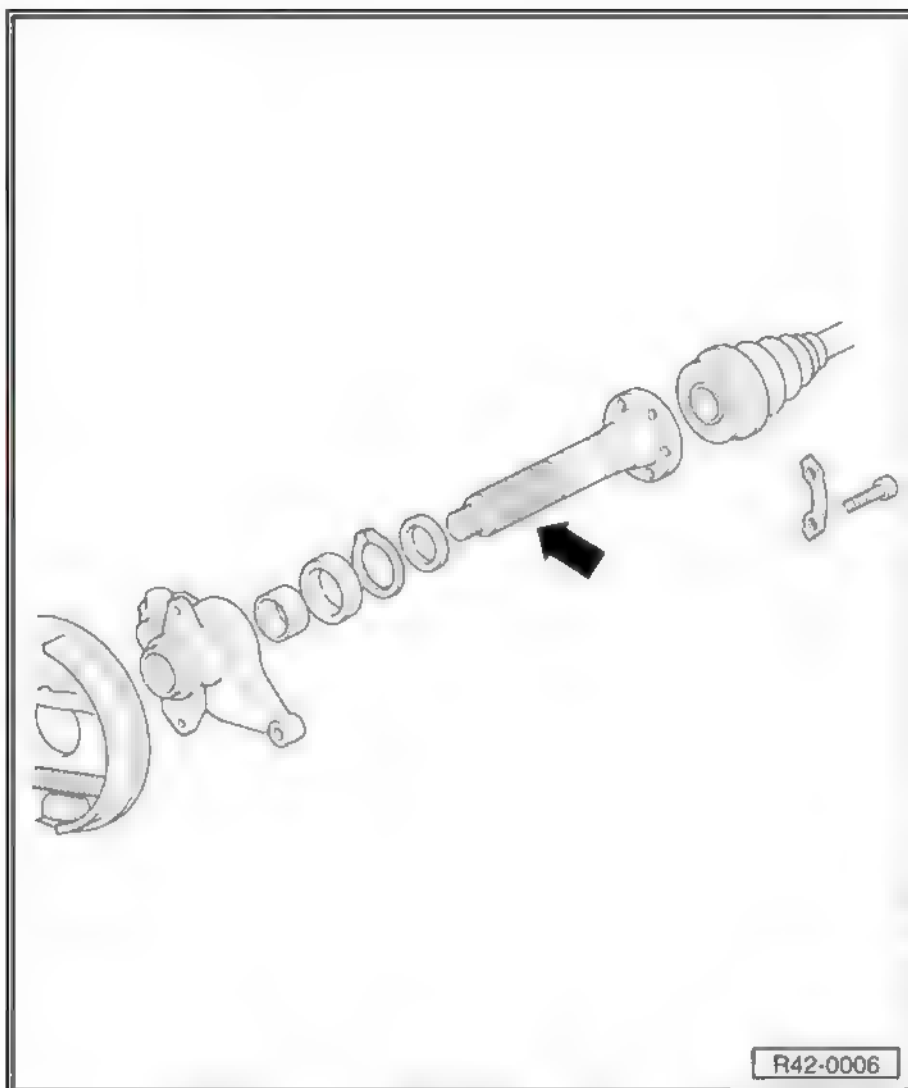
- Kombi
- Product used
- Lubricating paste for constant velocity joints ➔ [page 11](#)





20.2 Shaft end splines - lubricate

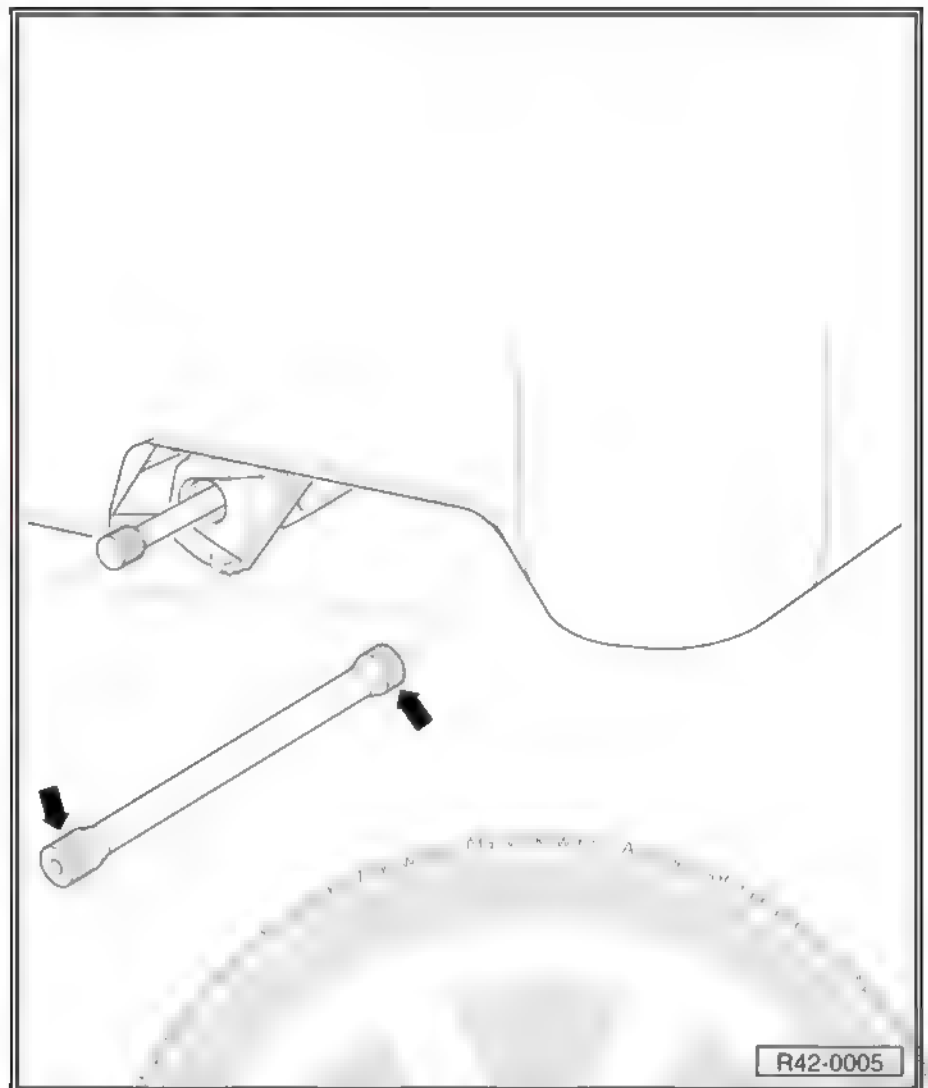
- Kombi
 - Product used
 - Multi-purpose grease
- ➔ [page 8](#)





20.3 Rear torsion bar - lubricate

- Kombi
- Product used
- Multi-purpose grease
→ [page 8](#)





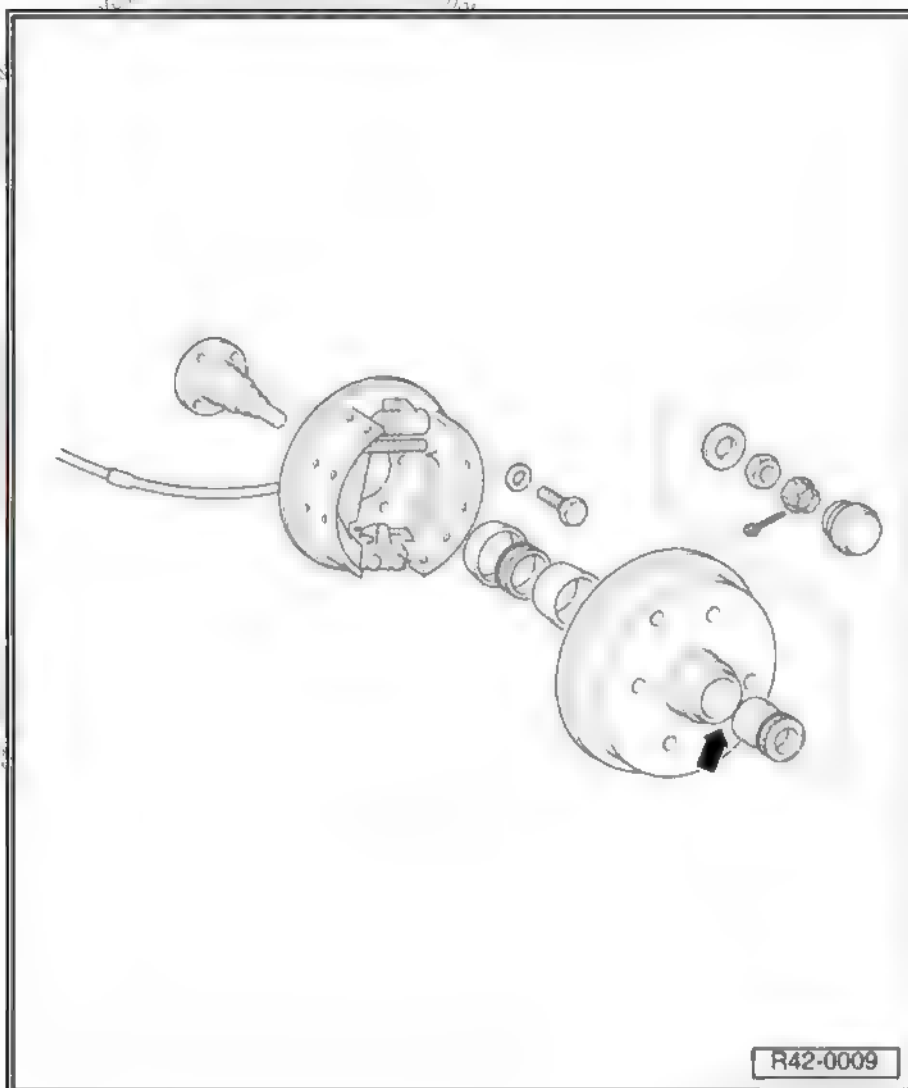
20.4 Rear wheel hub - lubricate

- Gol, Parati, Saveiro and Santana

- Product used

- Multi-purpose grease

⇒ [page 8](#)





20.5 Rear wheel hub seal - lubricate

- Kombi
- Product used
- Multi-purpose grease
→ [page 8](#)





20.6 Rear wheel bearing - lubricate

- Kombi
 - Product used
 - Multi-purpose grease
- [page 8](#)





21 Repair Group - 46 - Brakes - Mechanical systems



WARNING

Check the regulations on the disposal of each product and packaging as per manufacturer's guidelines and current legislation at local, state and federal level.

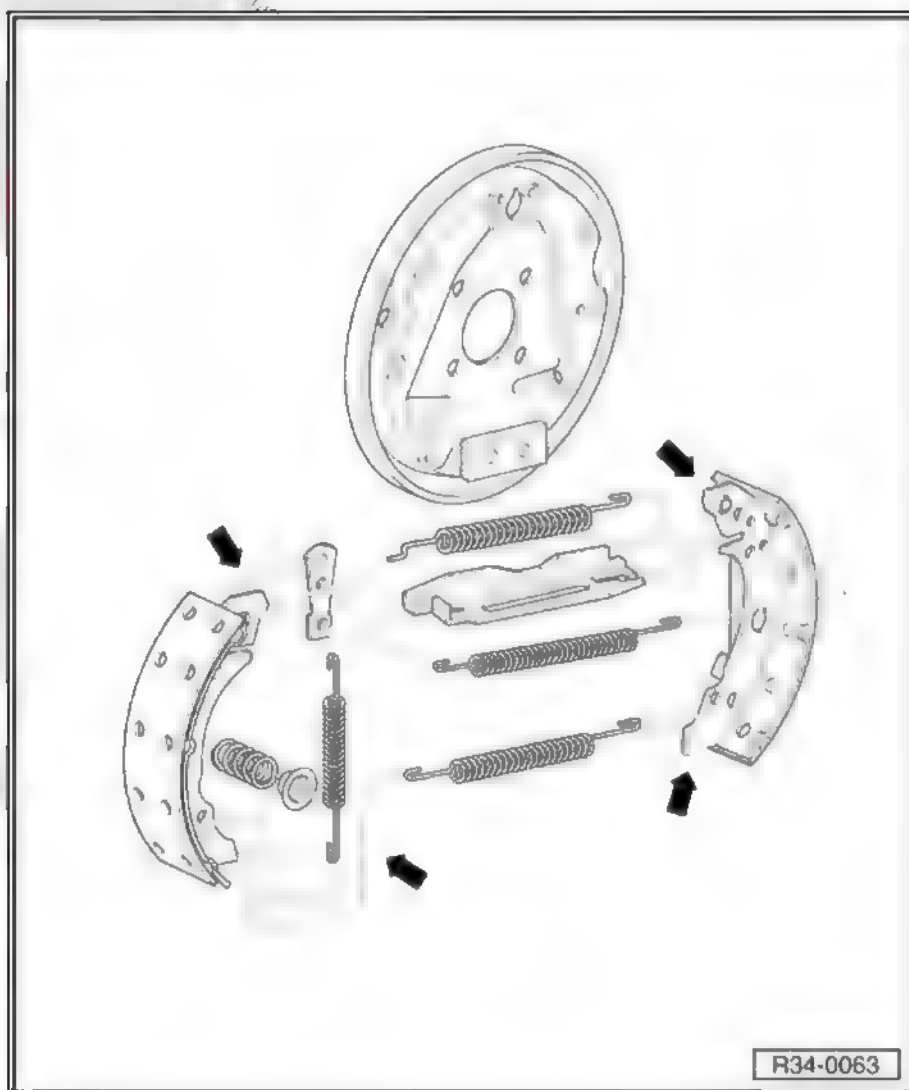
Observe the information in Chapter "Work Instructions for Handling Chemicals" ➔ [page 18](#)

21.1 Rear wheel brake shoe ends - lubricate

- Gol, Parati, Saveiro, Santana and Kombi

- Product used

- Complex grease ➔ [page 9](#)



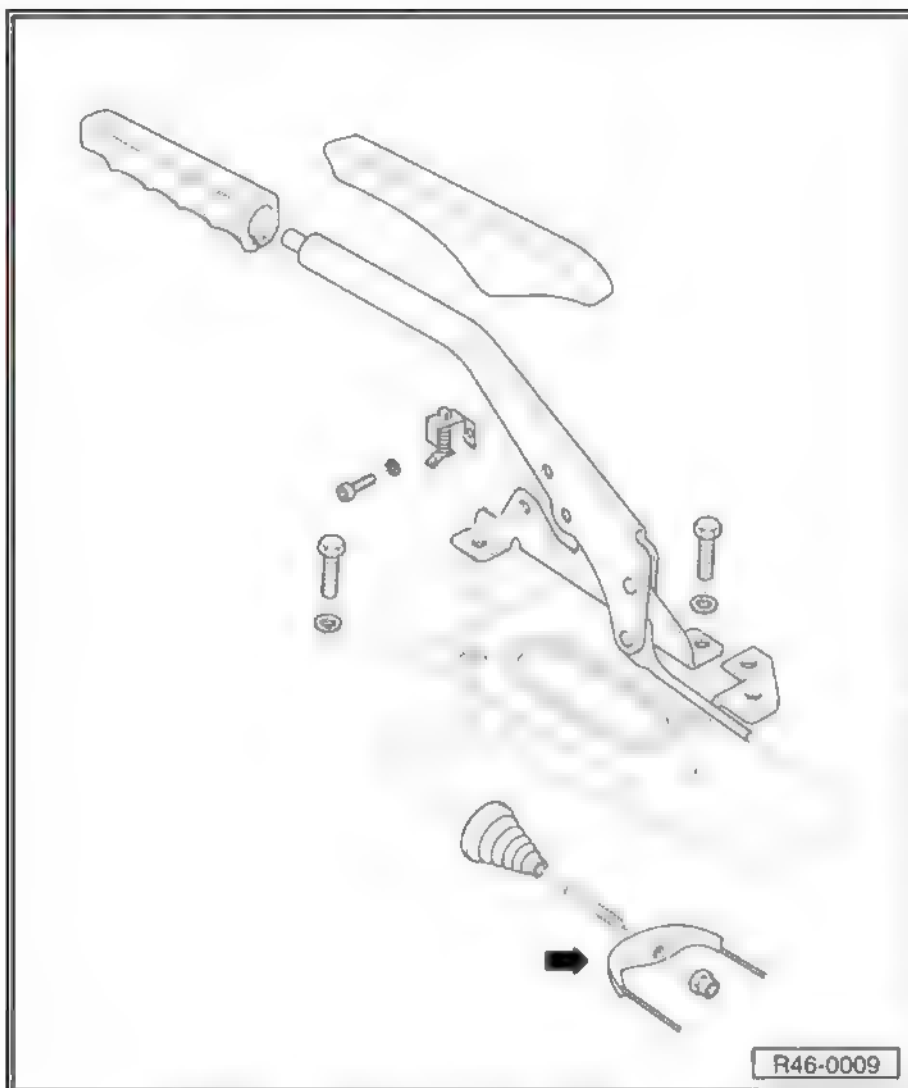


21.2 Handbrake cable terminal - lubricate

- Gol, Parati, Saveiro and Santana

- Product used

- Lubricating paste for constant velocity joints → [page 11](#)





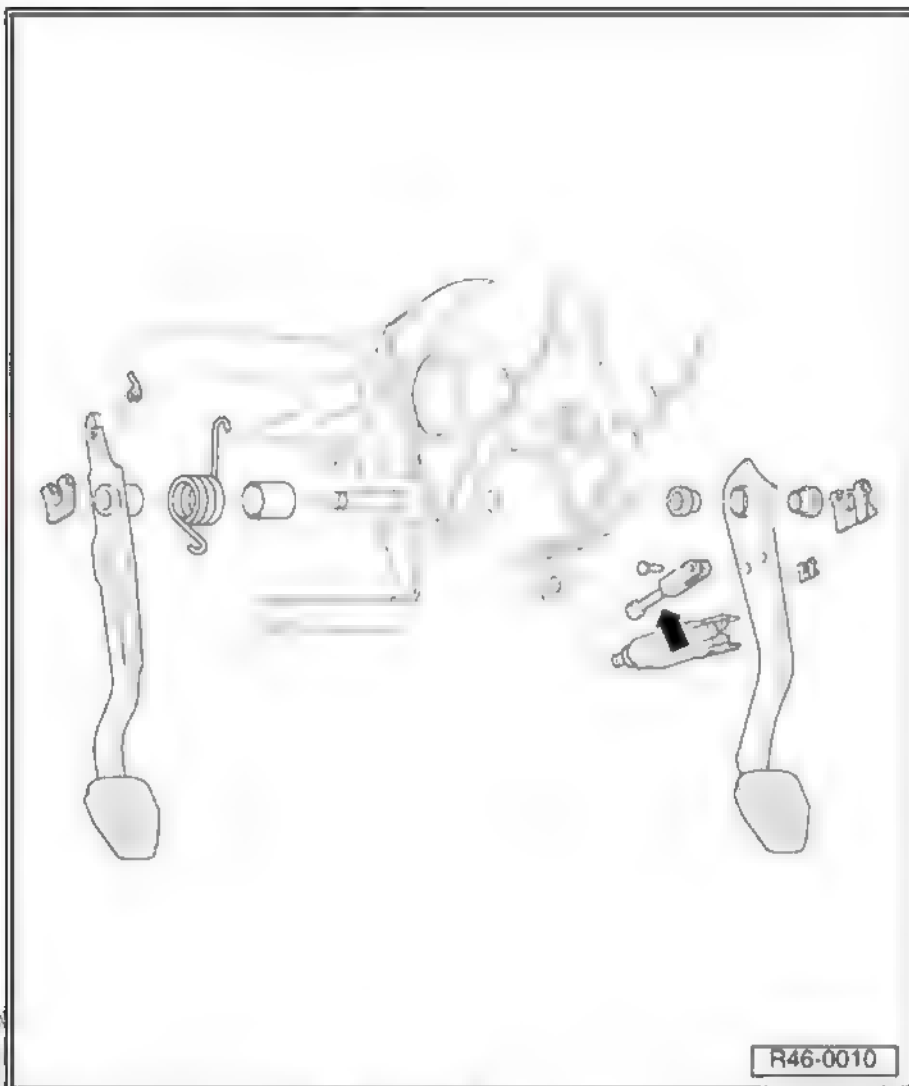
21.3 Brake pedal safety pin - lubricate

- Gol, Parati, Saveiro and Santana

- Product used

- White lubricating grease

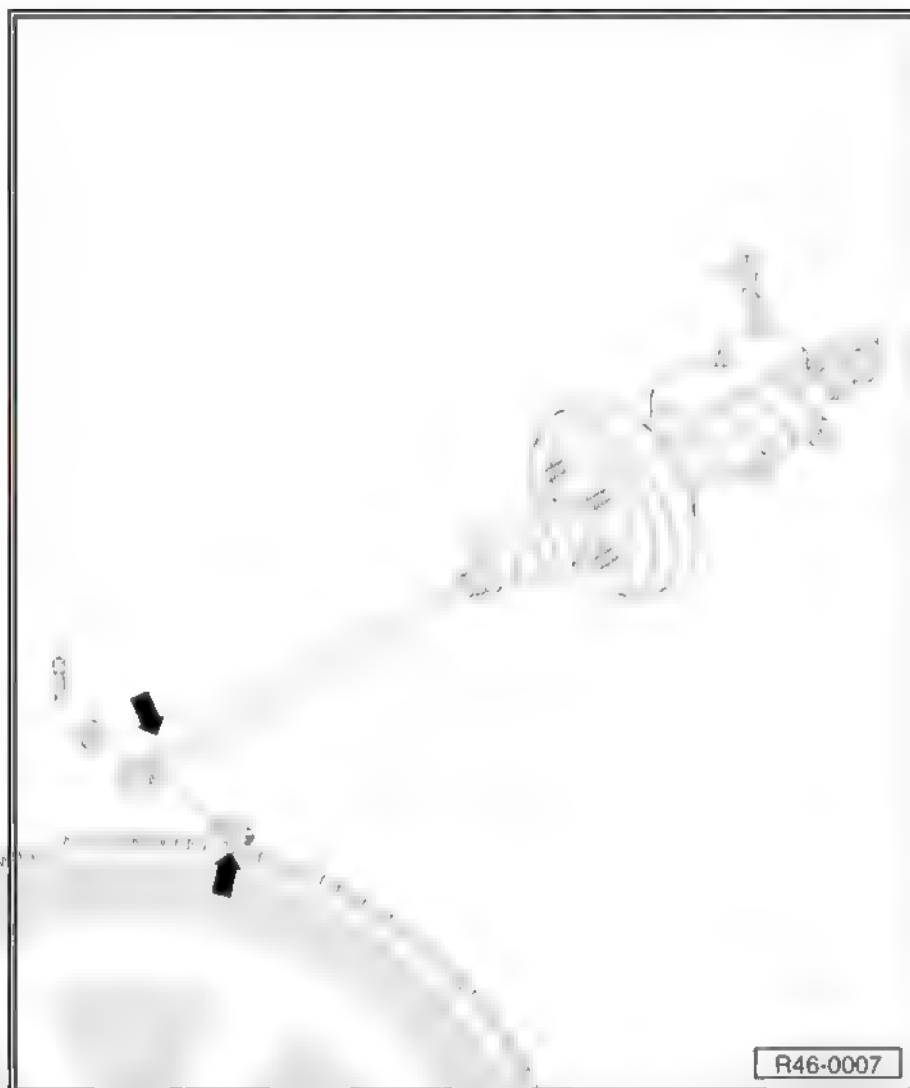
⇒ [page 15](#)





21.4 Securing pin for the operating rod of the master cylinder plunger - lubricate

- Kombi
 - Product used
 - Multi-purpose grease
- [page 8](#)





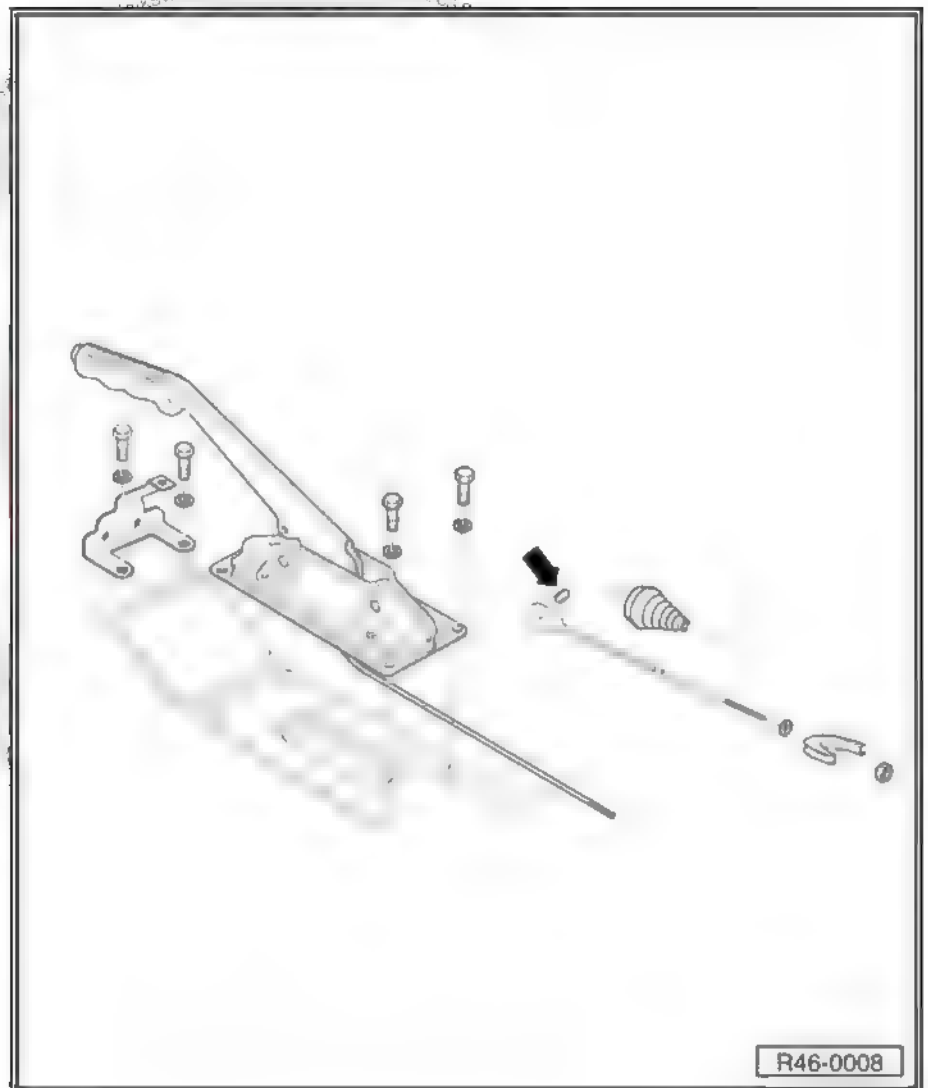
21.5 Securing pin of the handbrake lever - lubricate

- Gol, Parati, Saveiro and Santana

- Product used

- Multi-purpose grease

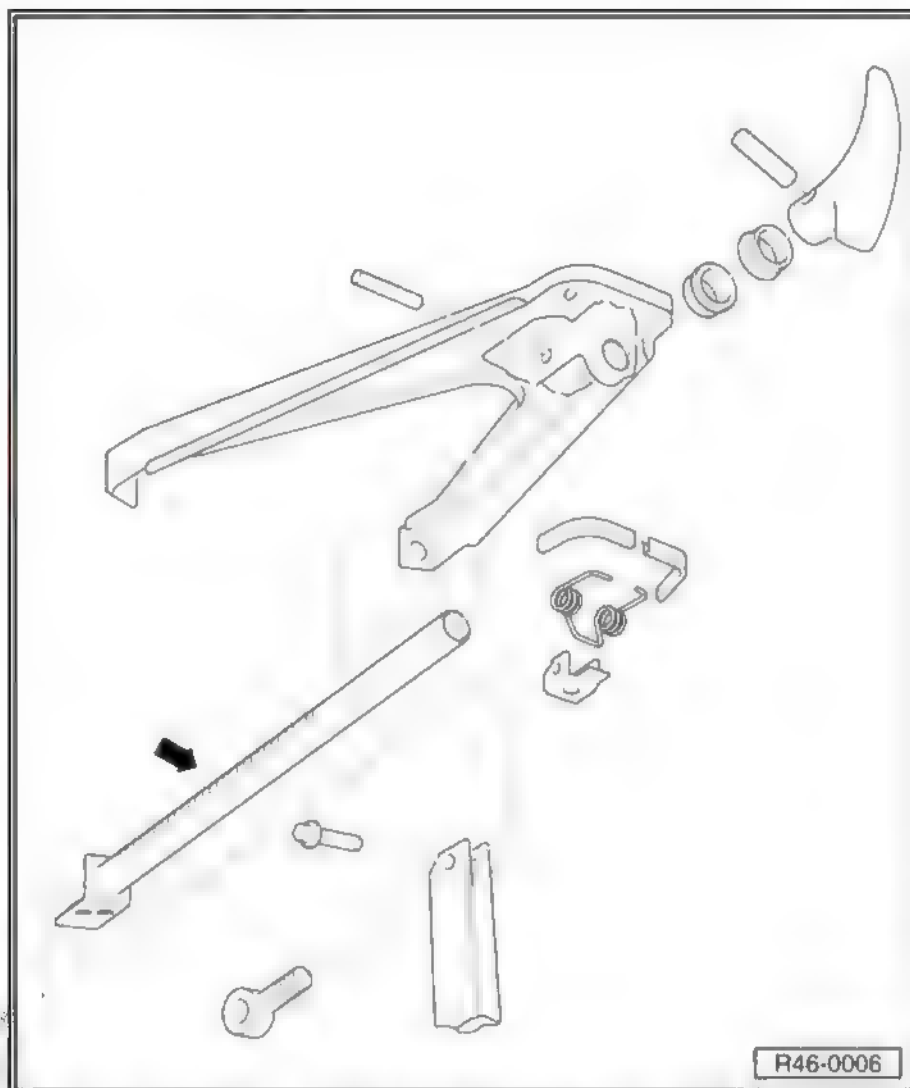
⇒ [page 8](#)





21.6 Handbrake ratchet - lubricate

- Kombi
 - Product used
 - Multi-purpose grease
- ➔ [page 8](#)





22 Repair Group - 47 - Brakes - Brake servo hydraulic system



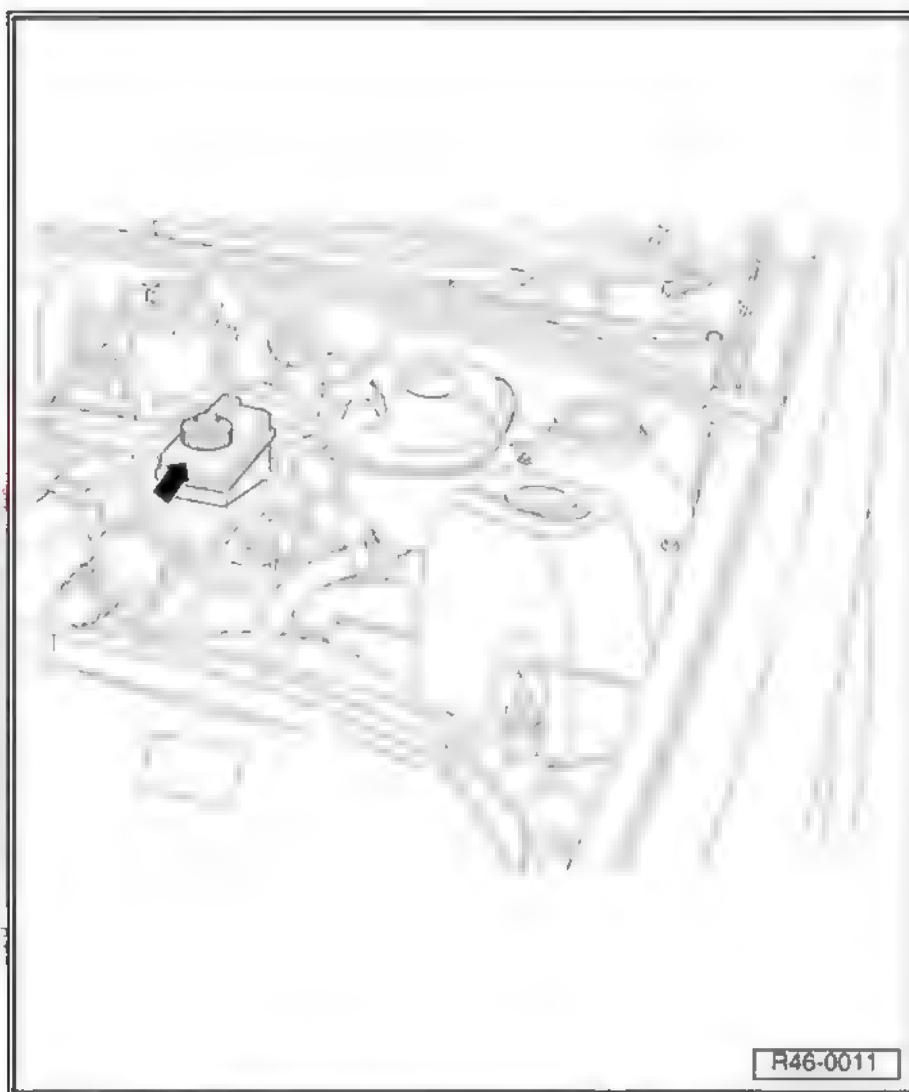
WARNING

Check the regulations on the disposal of each product and packaging as per manufacturer's guidelines and current legislation at local, state and federal level.

Observe the information in Chapter "Work Instructions for Handling Chemicals" ➤ [page 18](#)

22.1 Brake system - fill / top up

- All
- Product used
- Hydraulic brake fluid (DOT 4)
➤ [page 8](#)





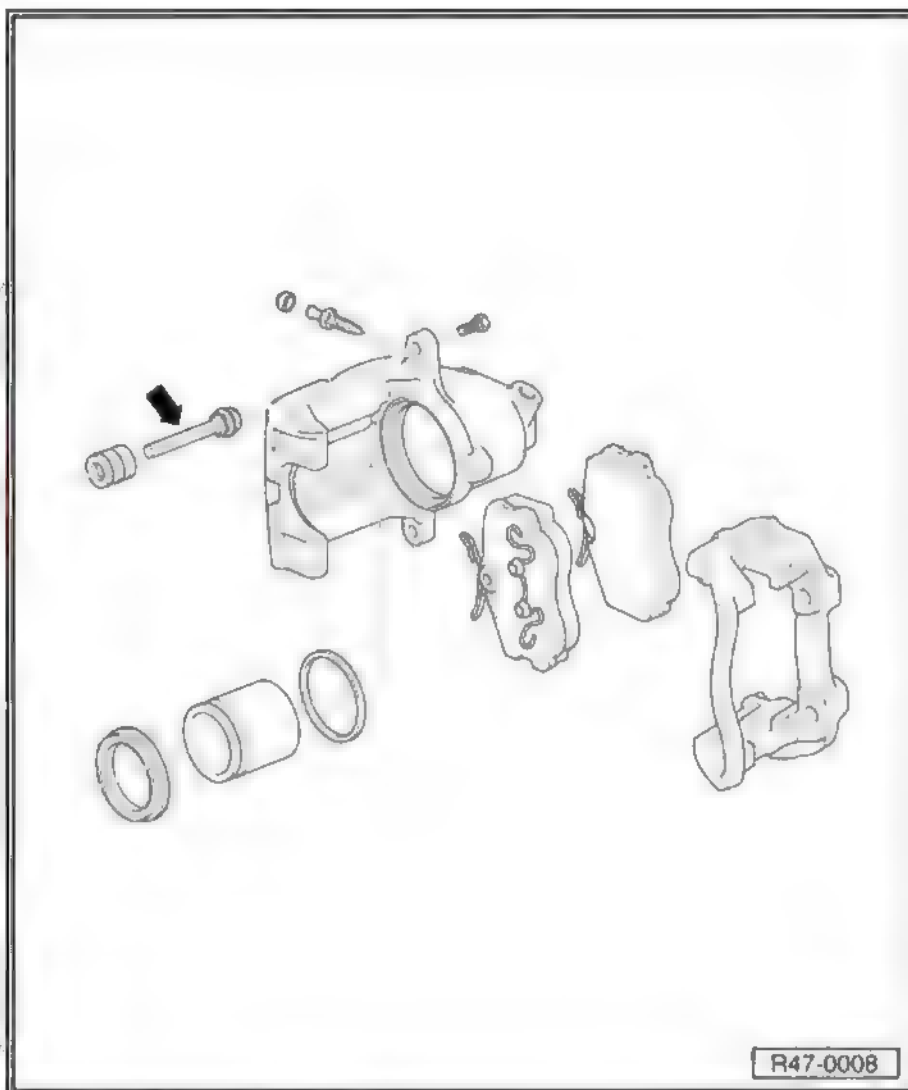
22.2 Guide pin for the support of the front disc brake cylinder (manufactured by Varga) - lubricate

- Gol, Parati, Saveiro and Santana

- Product used

- Grease for front wheel cylinder support guide pin

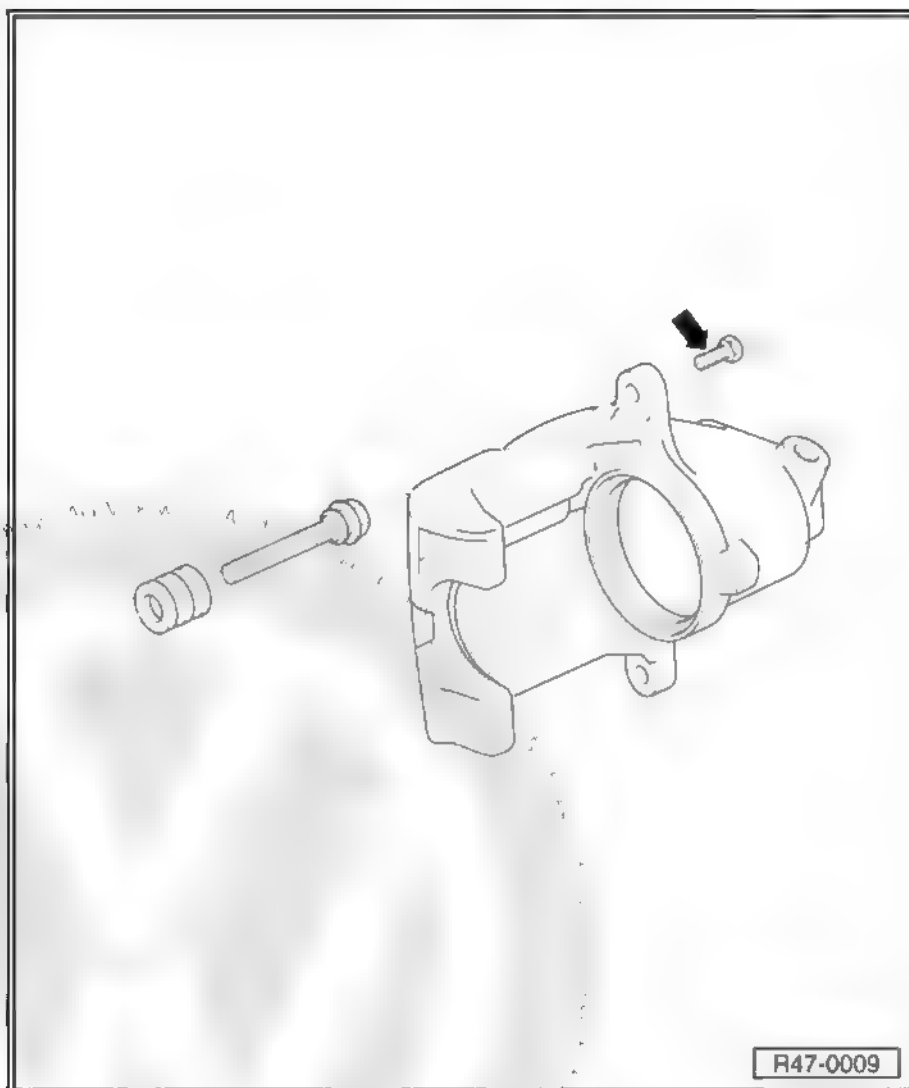
⇒ [page 9](#)





22.3 Fastening screw for the front disc brake cylinder housing - lock

- Gol, Parati, Saveiro and Santana with Vargas brake system
- Product used
- Medium torque locking adhesive





23 Repair Group - 48 - Steering



WARNING

Check the regulations on the disposal of each product and packaging as per manufacturer's guidelines and current legislation at local, state and federal level.

Observe the information in Chapter "Work Instructions for Handling Chemicals" ➔ [page 18](#)

23.1 Power steering oil reservoir - Fill / top up oil level

- Santana ⁽¹⁾, Gol ⁽²⁾, Parati, Saveiro, Polo ⁽³⁾ and Fox ⁽³⁾

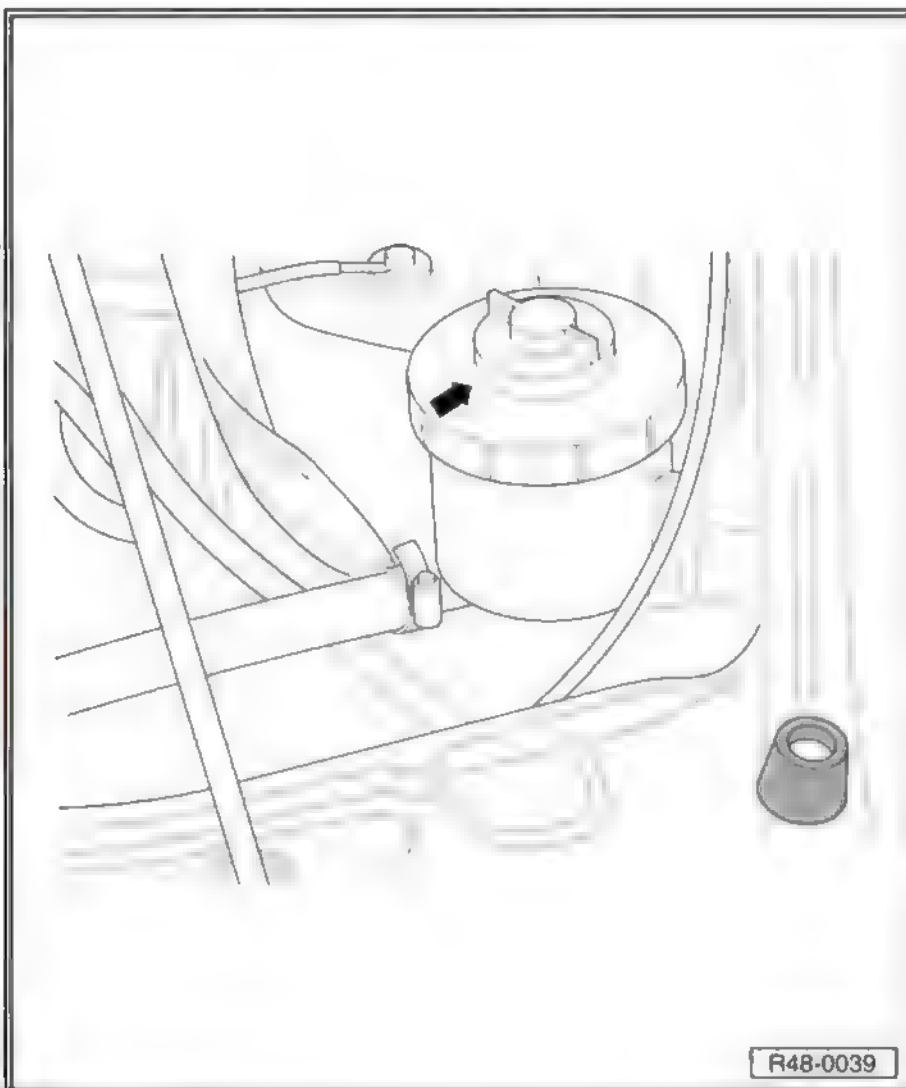
⁽¹⁾Chassis numbers up to SP055380, and from 2P006394 onwards

⁽²⁾Except exports to Russia and Kazakhstan

⁽³⁾Without hydraulic power steering

- Product used

- Power steering oil - 325 029 901 1- ➔ [page 14](#)





23.2 Oil reservoir for the power steering system - fill / top up oil level

- Santana ⁽¹⁾, Gol ⁽²⁾, Golf, Passat, Polo Classic, Fox ⁽³⁾, Polo ⁽³⁾ and Saveiro ⁽⁴⁾

⁽¹⁾From chassis number SP055381, to chassis number 2P006393.

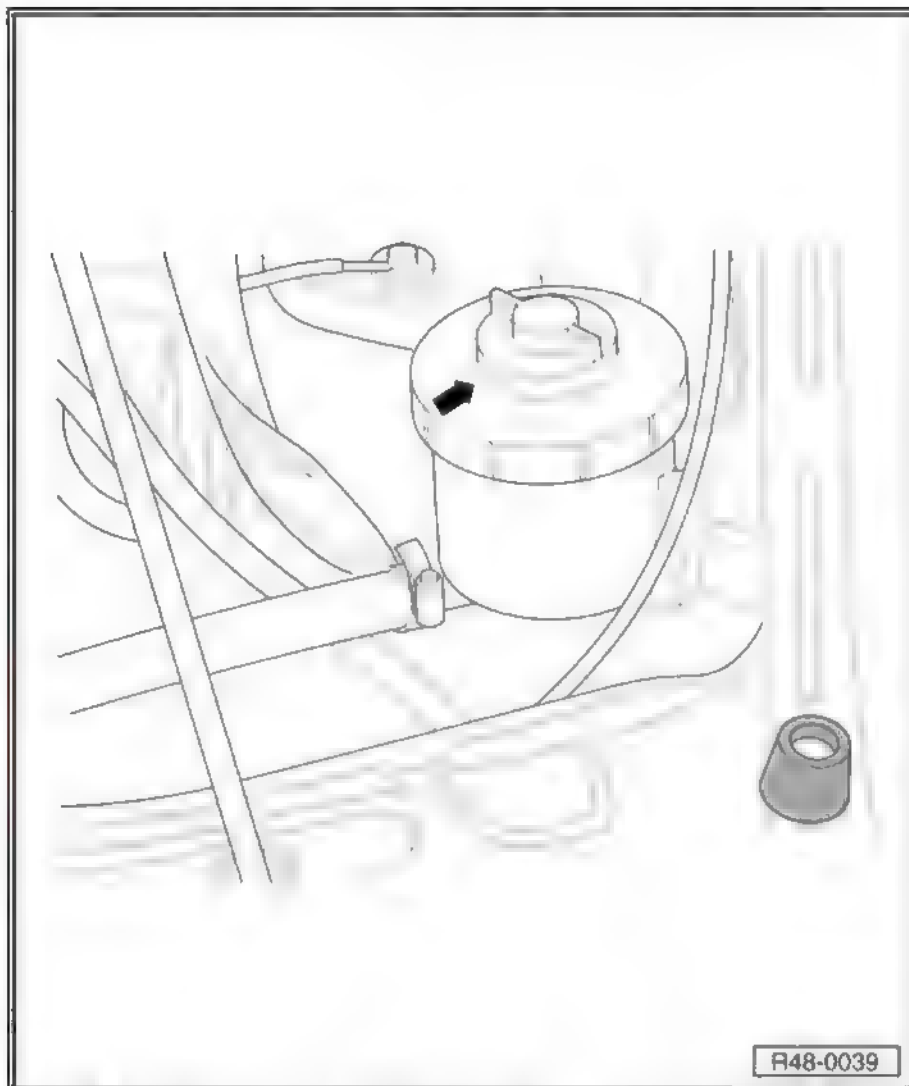
⁽²⁾ Export to Russia and Kazakhstan.

⁽³⁾With electric power steering.

⁽⁴⁾As from chassis number 24000001 (made in Curitiba).

- Product used

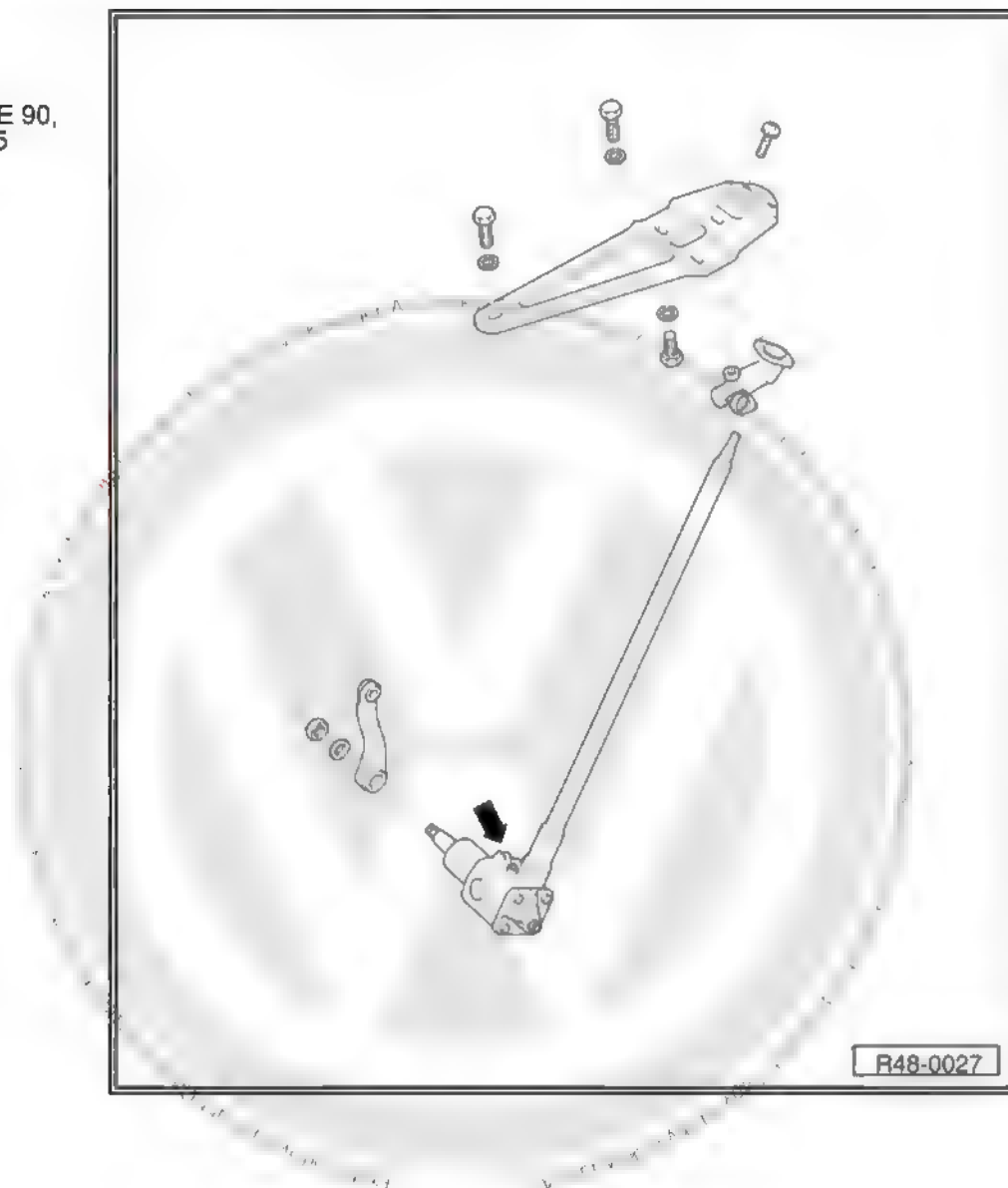
- Power steering oil - G 004 000 M2- ➔ [page 14](#)





23.3 Steering box - Fill / top up level

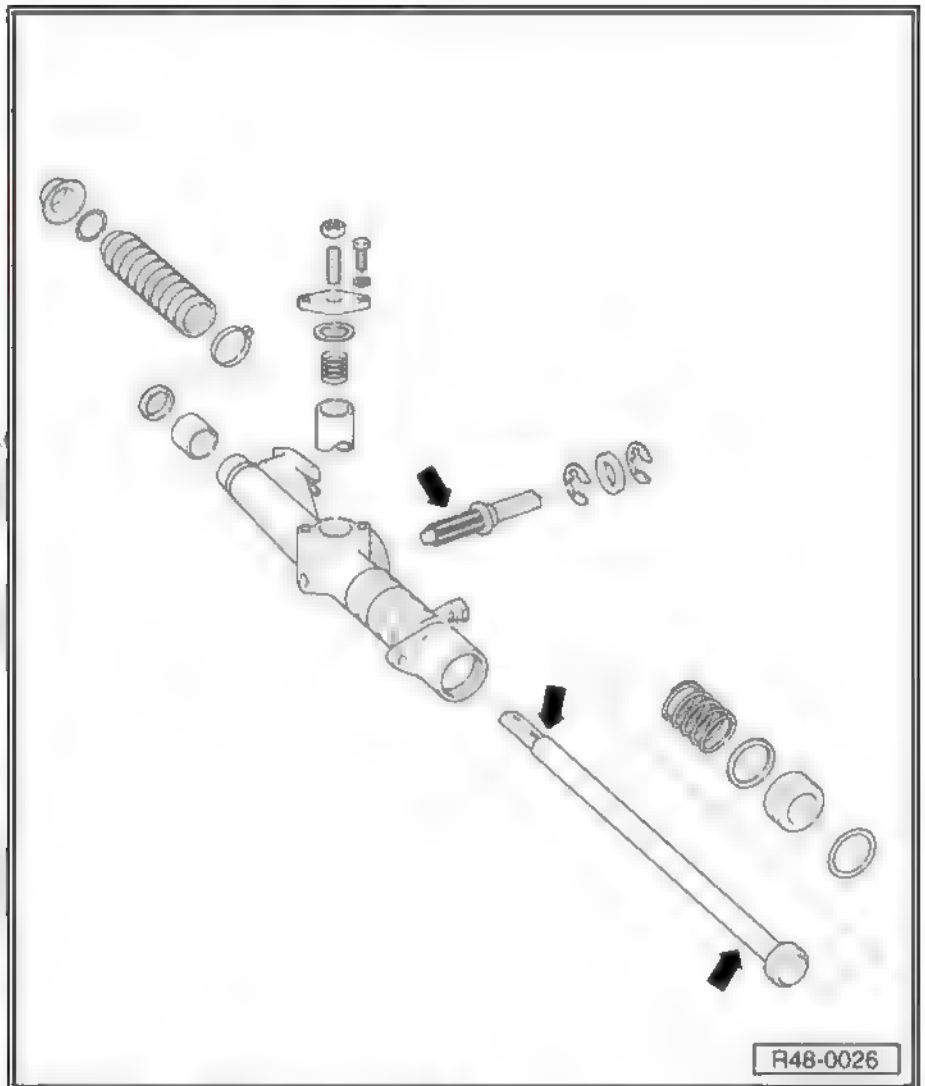
- Kombi
 - Product used
 - Steering box oil - SAE 90, MIL-L-2105B, API-GL5
- ⇒ [page 13](#)





23.4 Steering box mechanism - lubricate

- Gol, Parati, Saveiro and Santana
- Product used
- Semi-fluid grease → [page 8](#)



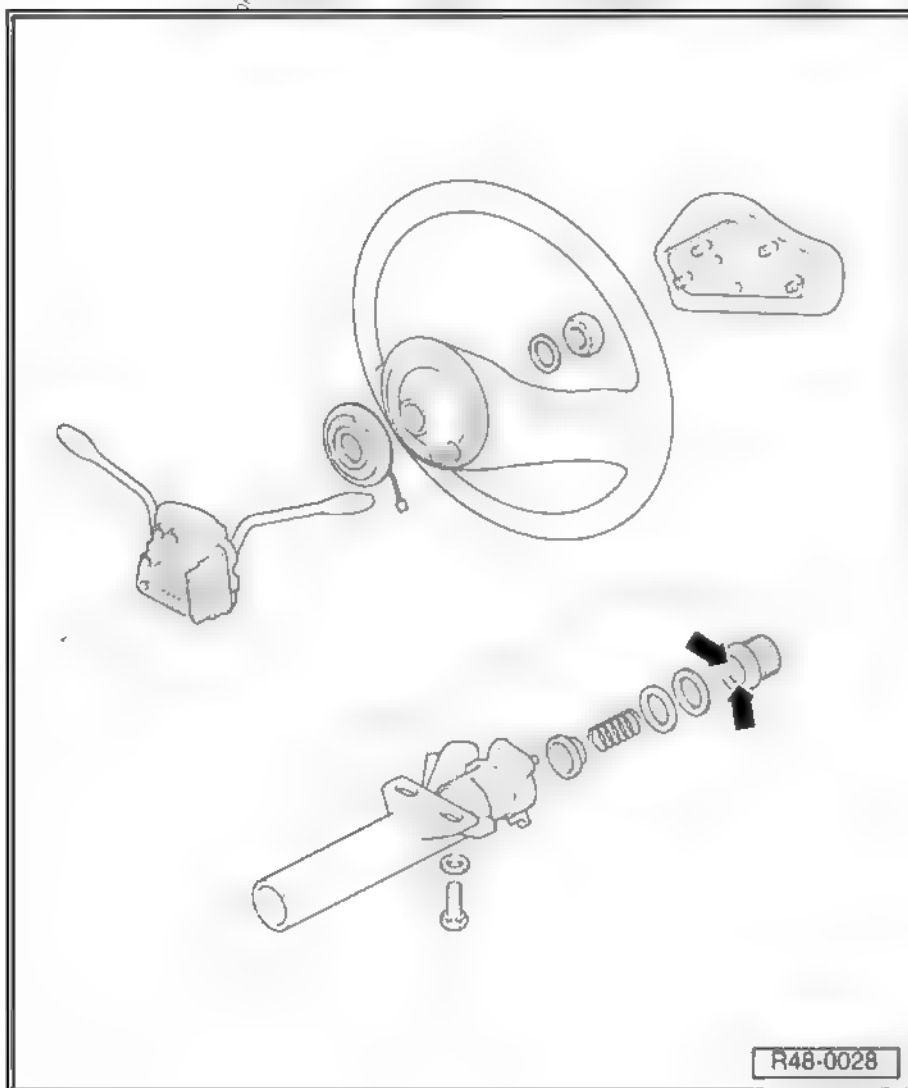


23.5 Adapter (sleeve) for the upper steering shaft - lock

- Gol, Parati, Saveiro and Santana

- Product used

- Medium torque locking adhesive





24 Repair Group - 53 - Body - Rear section



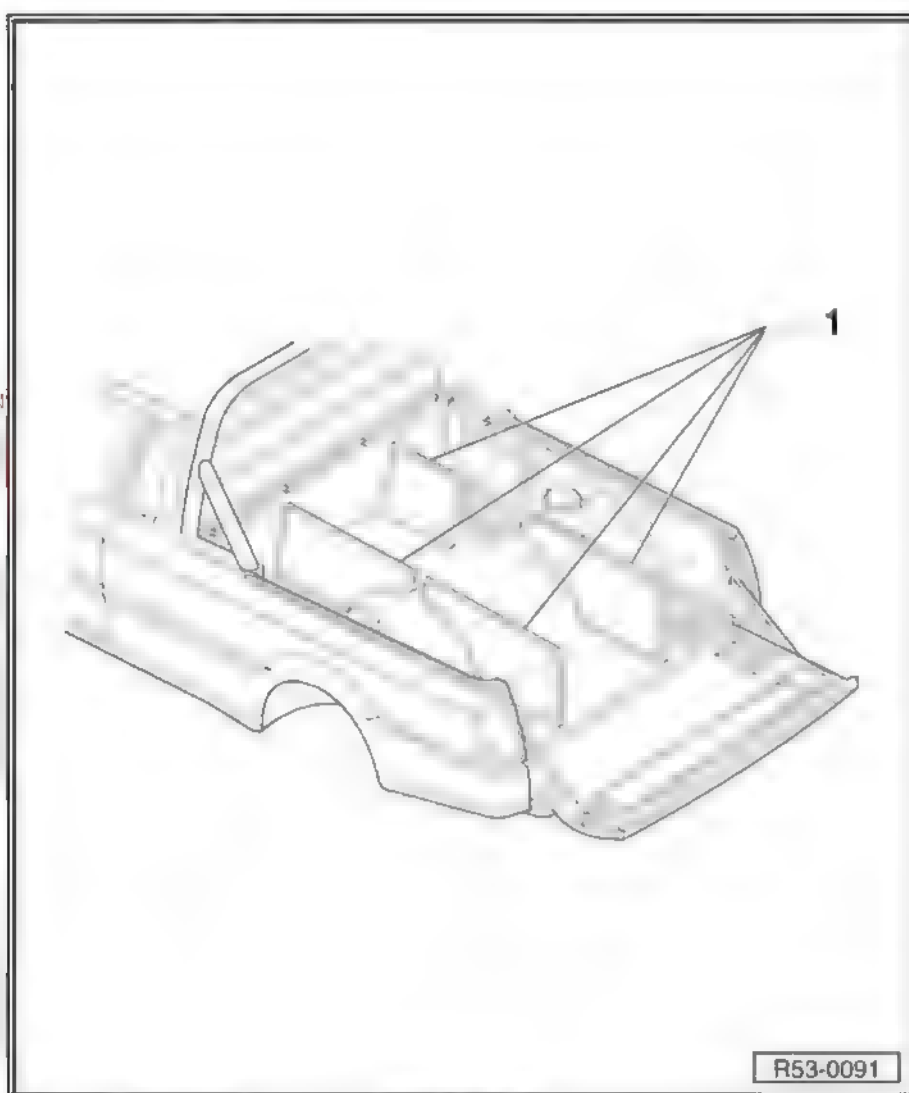
WARNING

Check the regulations on the disposal of each product and packaging as per manufacturer's guidelines and current legislation at local, state and federal level.

Observe the information in Chapter "Work Instructions for Handling Chemicals" ➔ [page 18](#)

24.1 Bucket sealing membrane - glue

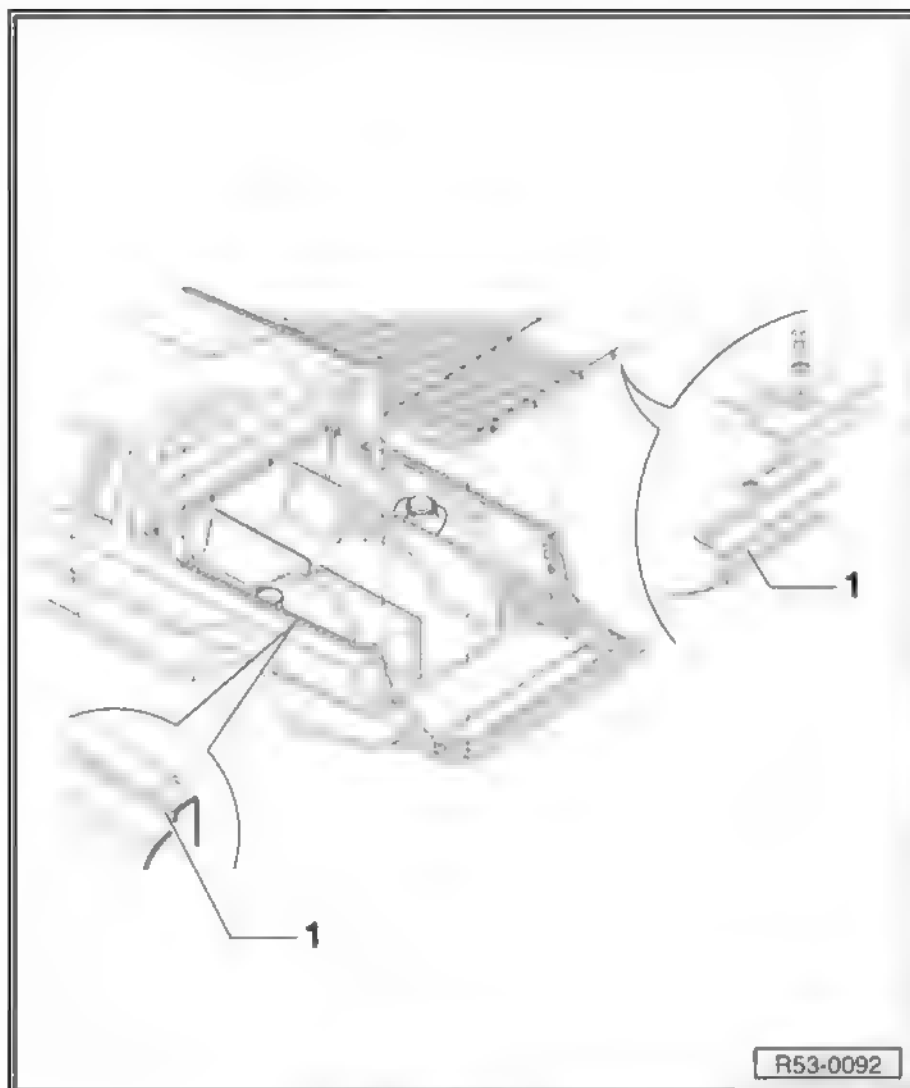
- Saveiro
- Product used
- Transferable adhesive tape
➔ [page 7](#)





24.2 Rear side panel - protect the paint

- Saveiro
- Product used
- Polyurethane adhesive tape
→ [page 7](#)
- ☐ 1 - Polyurethane adhesive tape





25 Repair Group - 55 - Covers



WARNING

Check the regulations on the disposal of each product and packaging as per manufacturer's guidelines and current legislation at local, state and federal level.

Observe the information in Chapter "Work Instructions for Handling Chemicals" ➔ [page 18](#)

25.1 Bucket protective cover longitudinal member - glue the finishing

- Saveiro
- Product used
- Adhesive for finishing and lining ➔ [page 5](#)





25.2 Lower latch of the bonnet - lubricate

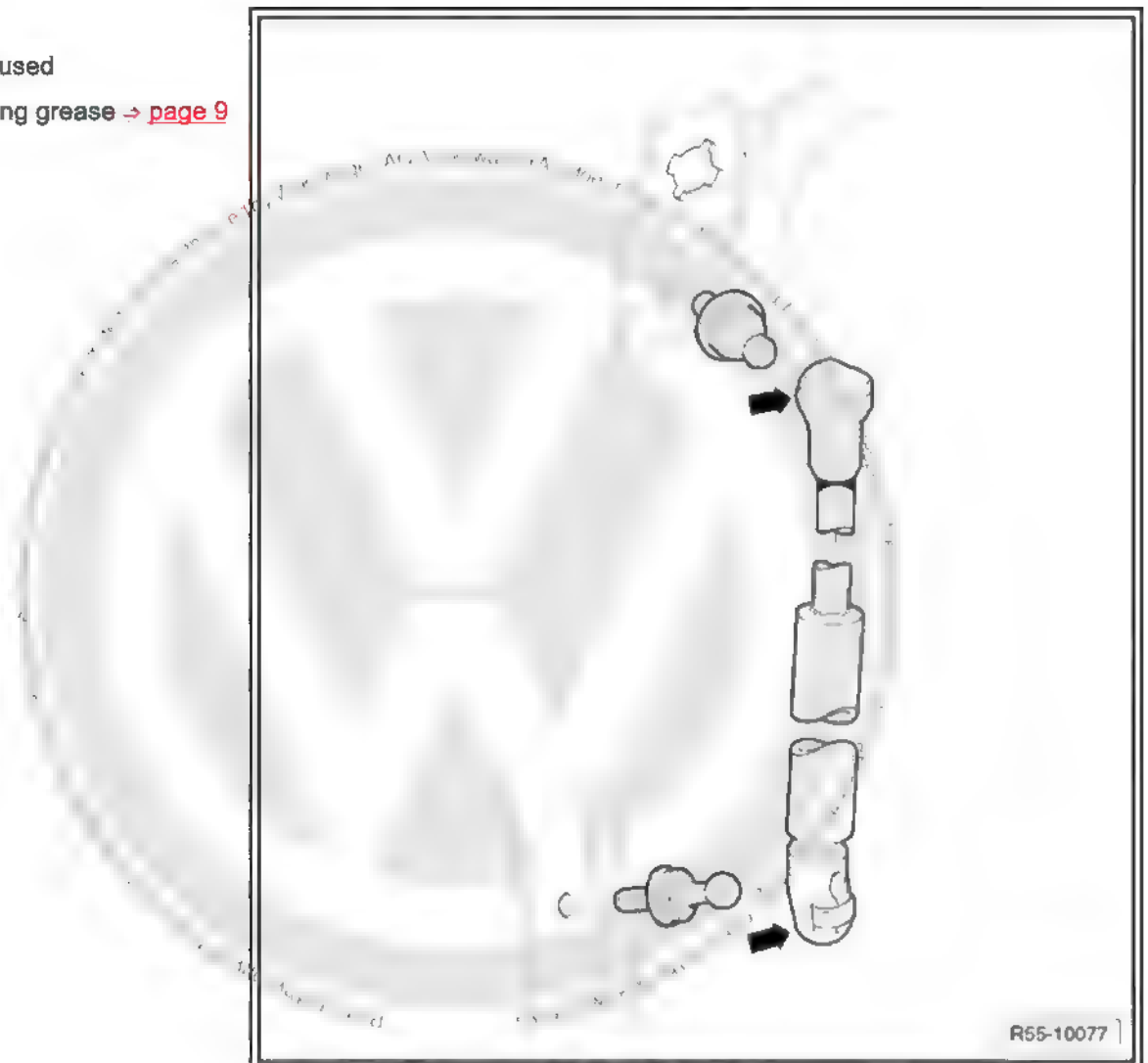
- All (except Kombi)
- Product used
- Multi-purpose grease
→ [page 8](#)





25.3 Damper eyelet for the rear cover - lubricate

- All
- Product used
- Lubricating grease → [page 9](#)





26 Repair Group - 57 - Front doors / components / central lock



WARNING

Check the regulations on the disposal of each product and packaging as per manufacturer's guidelines and current legislation at local, state and federal level.

Observe the information in Chapter "Work Instructions for Handling Chemicals" ⇒ [page 18](#)

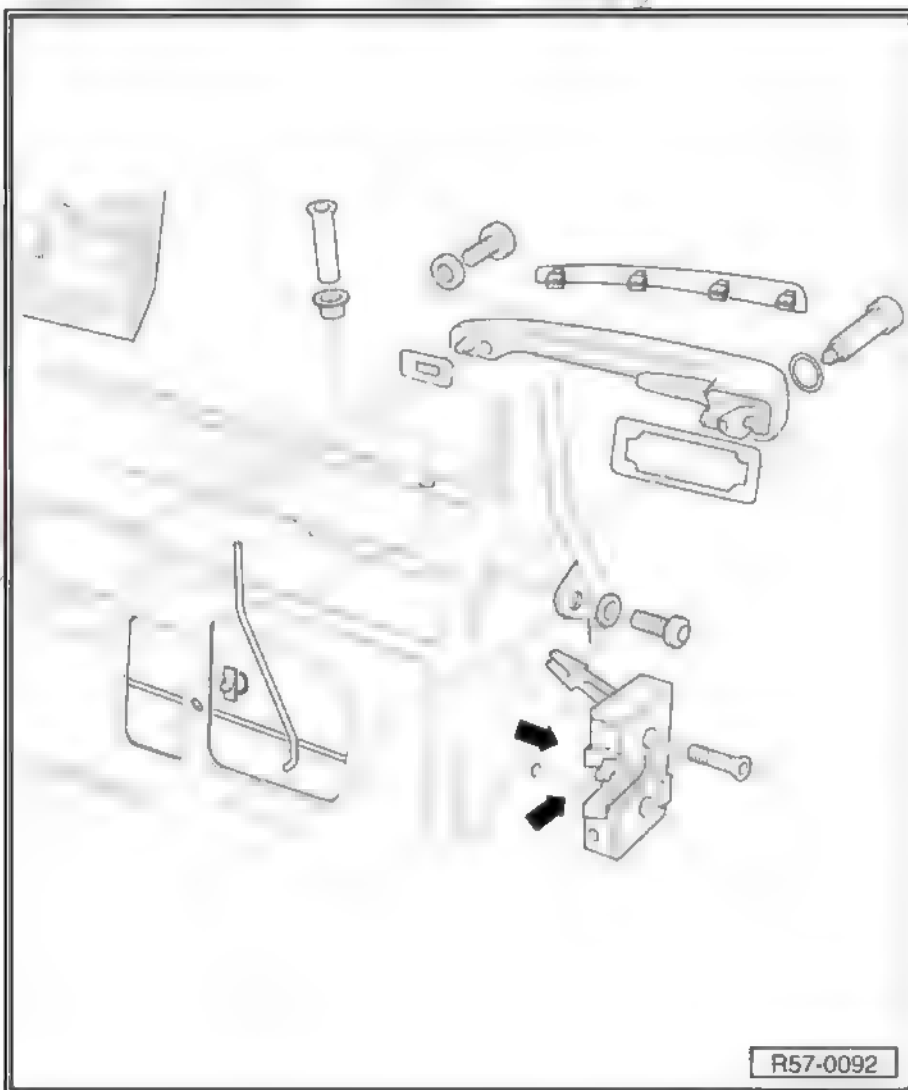
26.1 Front door lock - lubricate

- Gol, Parati, Saveiro and Santana

- Product used

- Multi-purpose grease

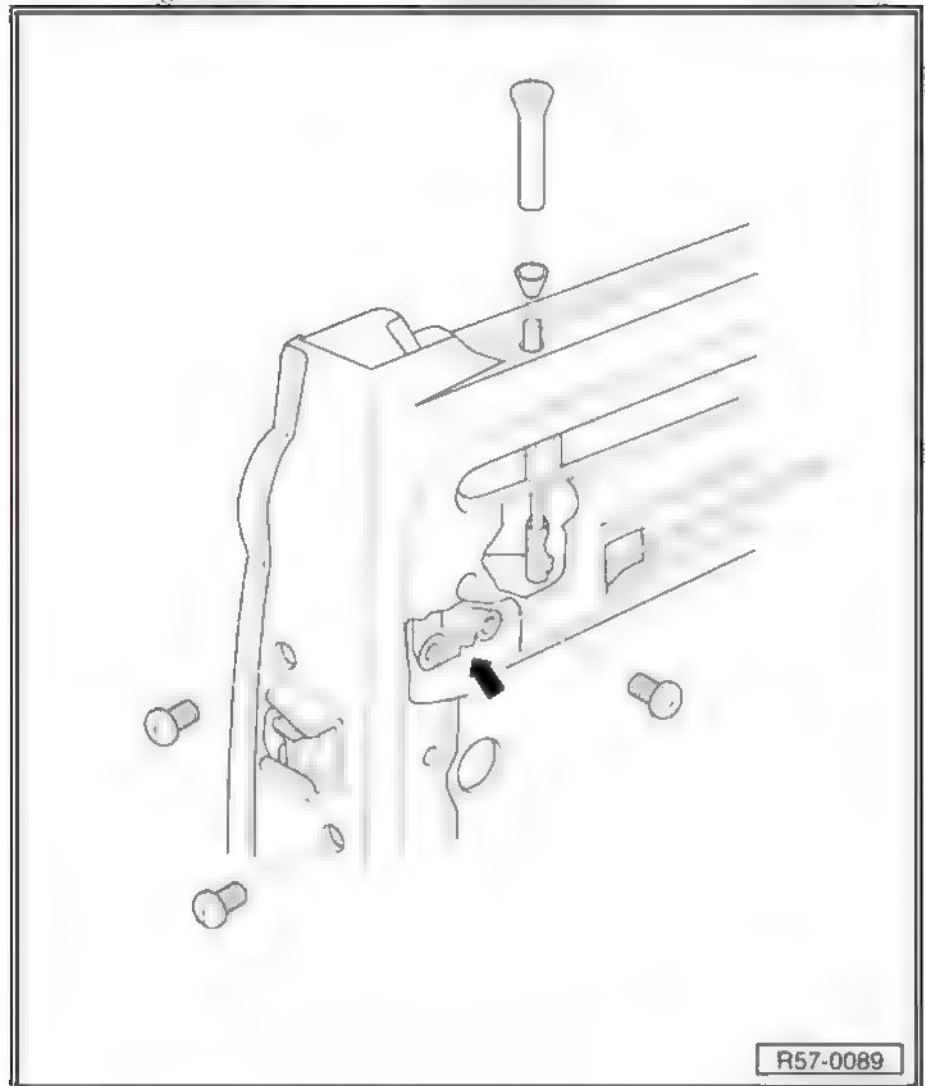
⇒ [page 8](#)





26.2 Lock drive rod - lubricate

- Kombi
- Product used
- Multi-purpose grease
→ [page 8](#)





26.3 Noise insulation for lock operating rod - glue

- All (except vehicles with cable operation)
- Product used
- Adhesive for finishing and lining → [page 5](#)



R57-0088



27 Repair Group - 58 - Rear doors / components



WARNING

Check the regulations on the disposal of each product and packaging as per manufacturer's guidelines and current legislation at local, state and federal level.

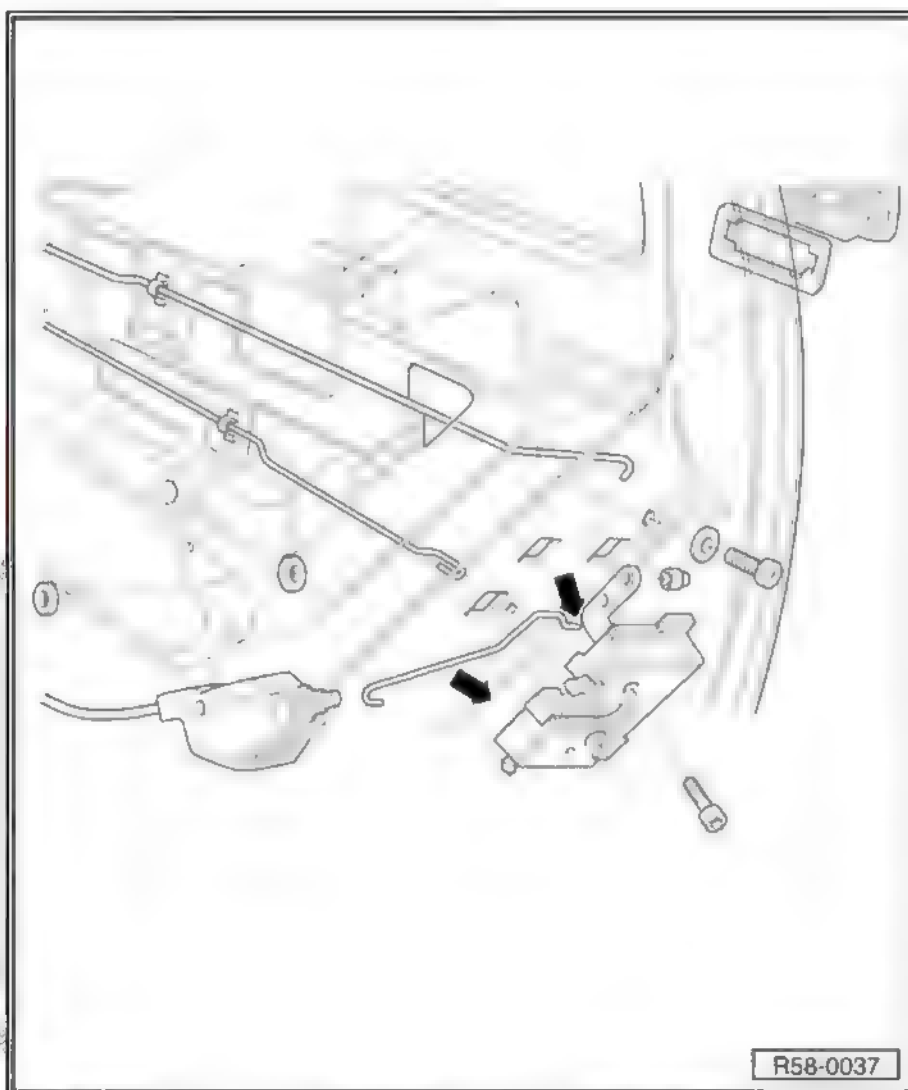
Observe the information in Chapter "Work Instructions for Handling Chemicals" ➤ [page 18](#)

27.1 Rear door lock - lubricate

- Gol, Parati, Saveiro and Santana

- Product used

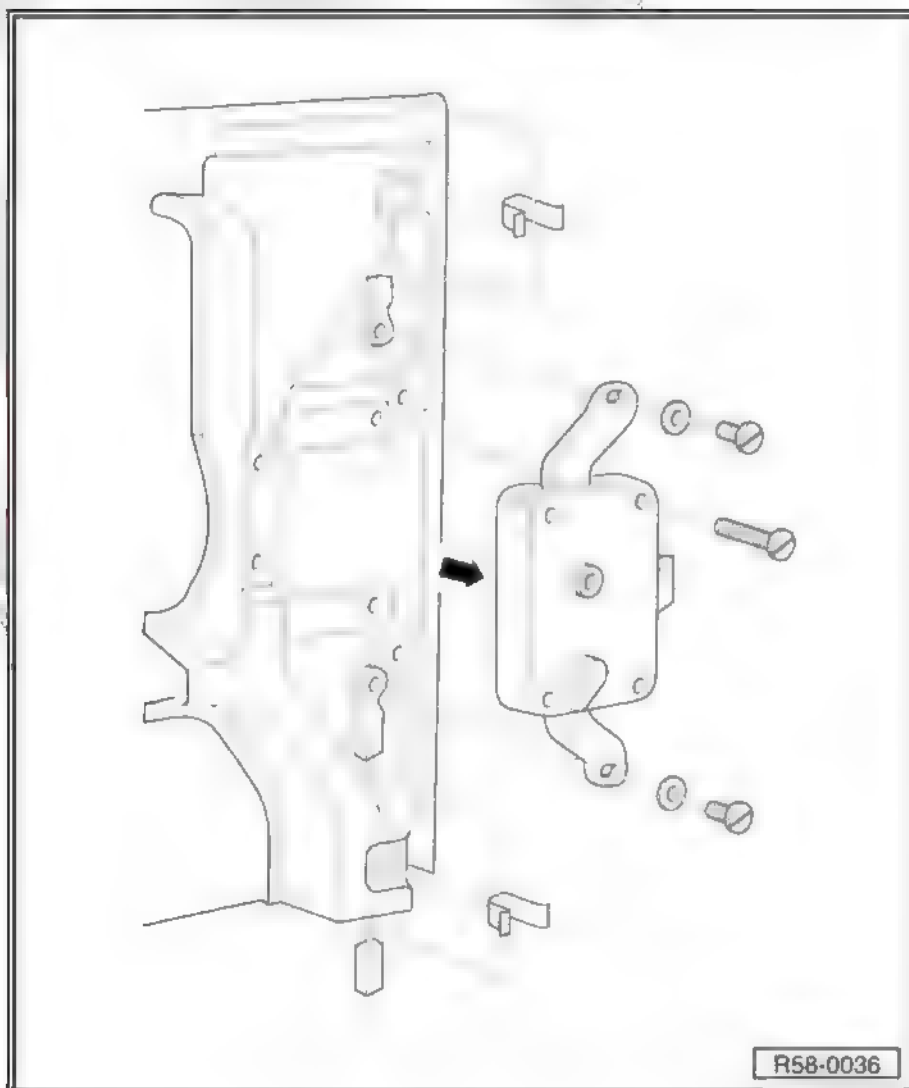
- Multi-purpose grease
➤ [page 8](#)





27.2 Side door lock - lubricate

- Kombi
- Product used
- Multi-purpose grease
→ [page 8](#)





28 Repair Group - 64 - Windscreens, windows, window mechanism



WARNING

Check the regulations on the disposal of each product and packaging as per manufacturer's guidelines and current legislation at local, state and federal level.

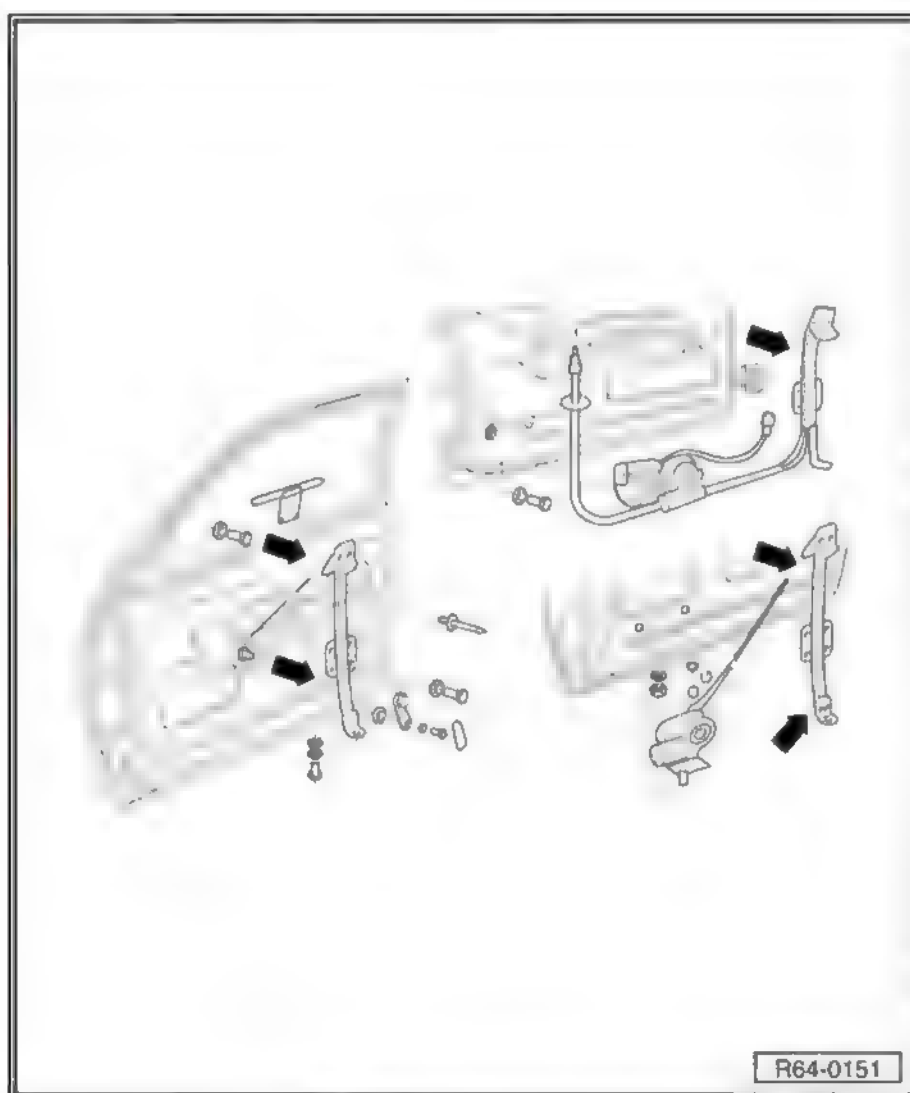
Observe the information in Chapter "Work Instructions for Handling Chemicals" ➤ [page 18](#)

28.1 Door window activation mechanism - lubricate

- Gol, Parati, Saveiro and Santana

- Product used

- Multi-purpose grease
➤ [page 8](#)





28.2 Vent window latch - lubricate

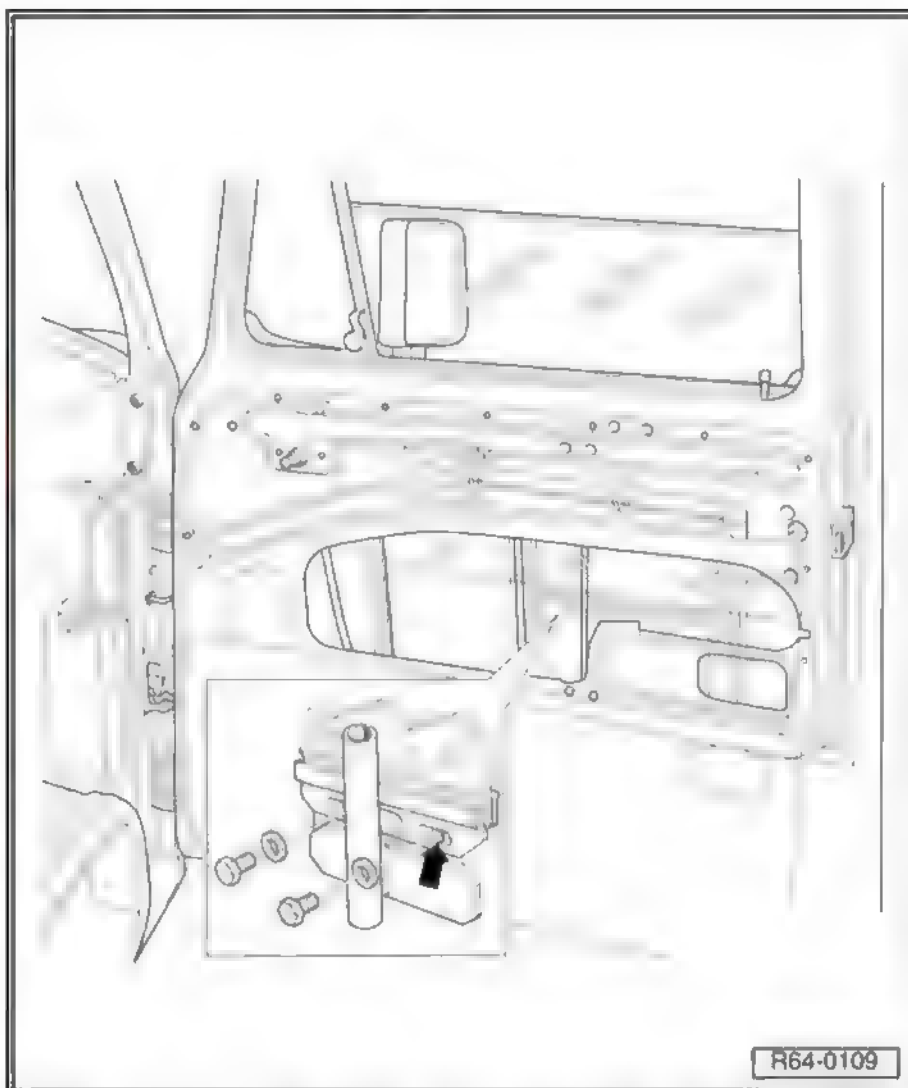
- Kombi
- Product used
- Multi-purpose grease
→ [page 8](#)





28.3 Front door window support - lubricate

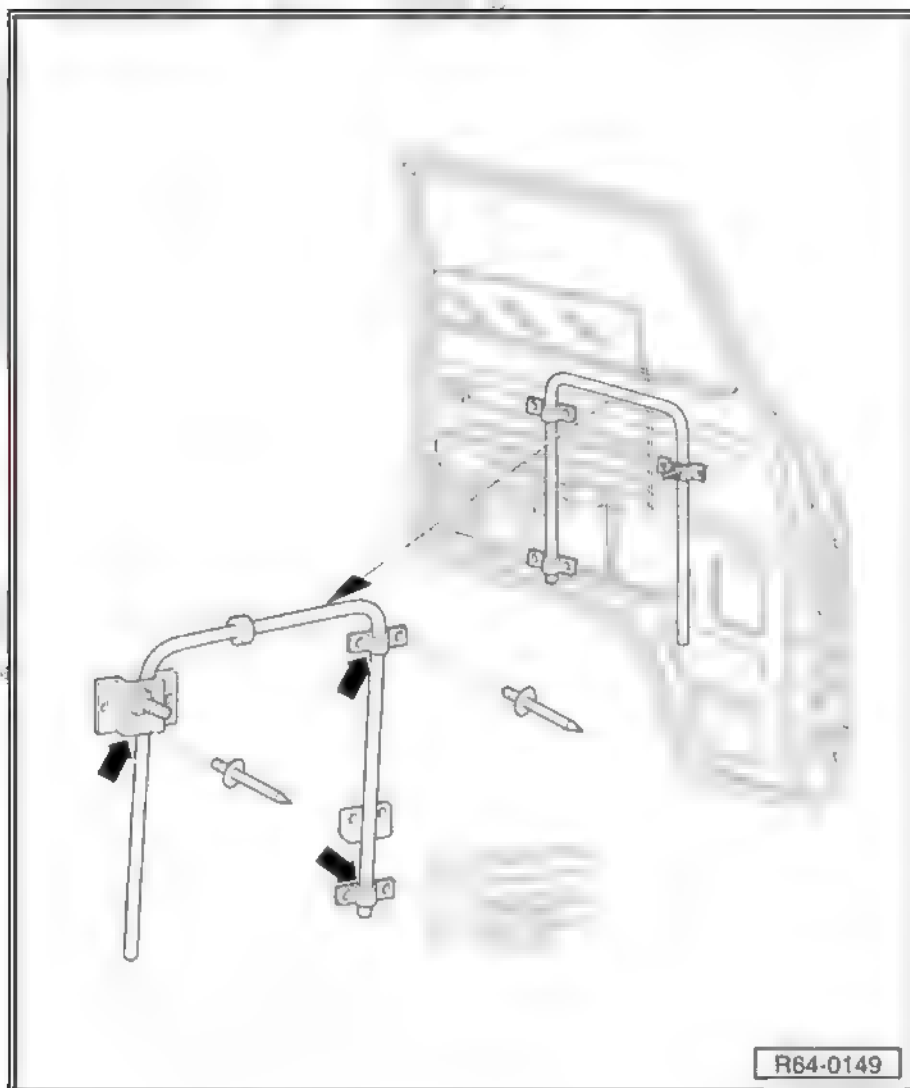
- Kombi
 - Product used
 - Multi-purpose grease
- [page 8](#)





28.4 Front door window activation mechanism - lubricate

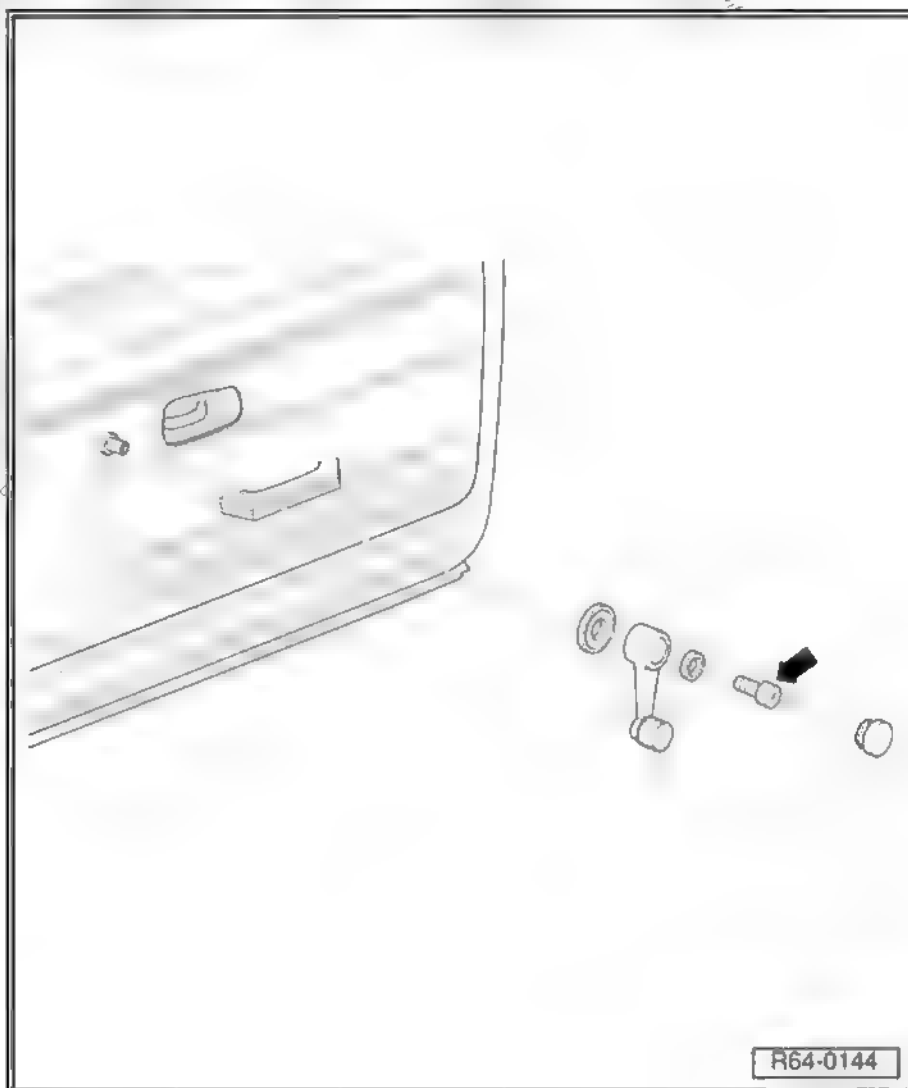
- Kombi
- Product used
- Multi-purpose grease
- [page 8](#)





28.5 Window crank fastening screw - lock

- All (fastened with screw)
- Product used
- Medium torque locking adhesive





28.6 Windscreen, side window glass and rear window glass - glue

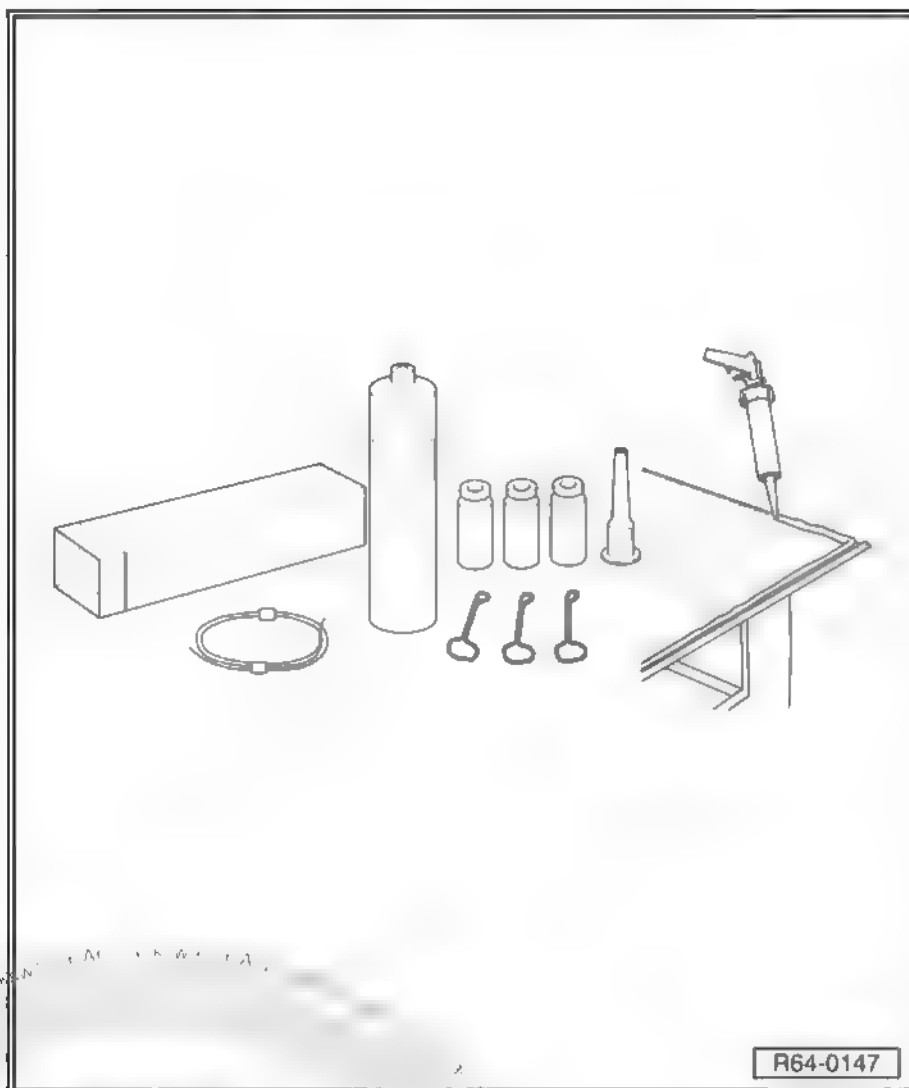
- All (except windows with packing)

- Product used

- Glass adhesion kit

□ Total drying time:

U-400 HVBN Adhesive: partial
3 h , total 72 h / 5500SA Pri-
mer: 15 min





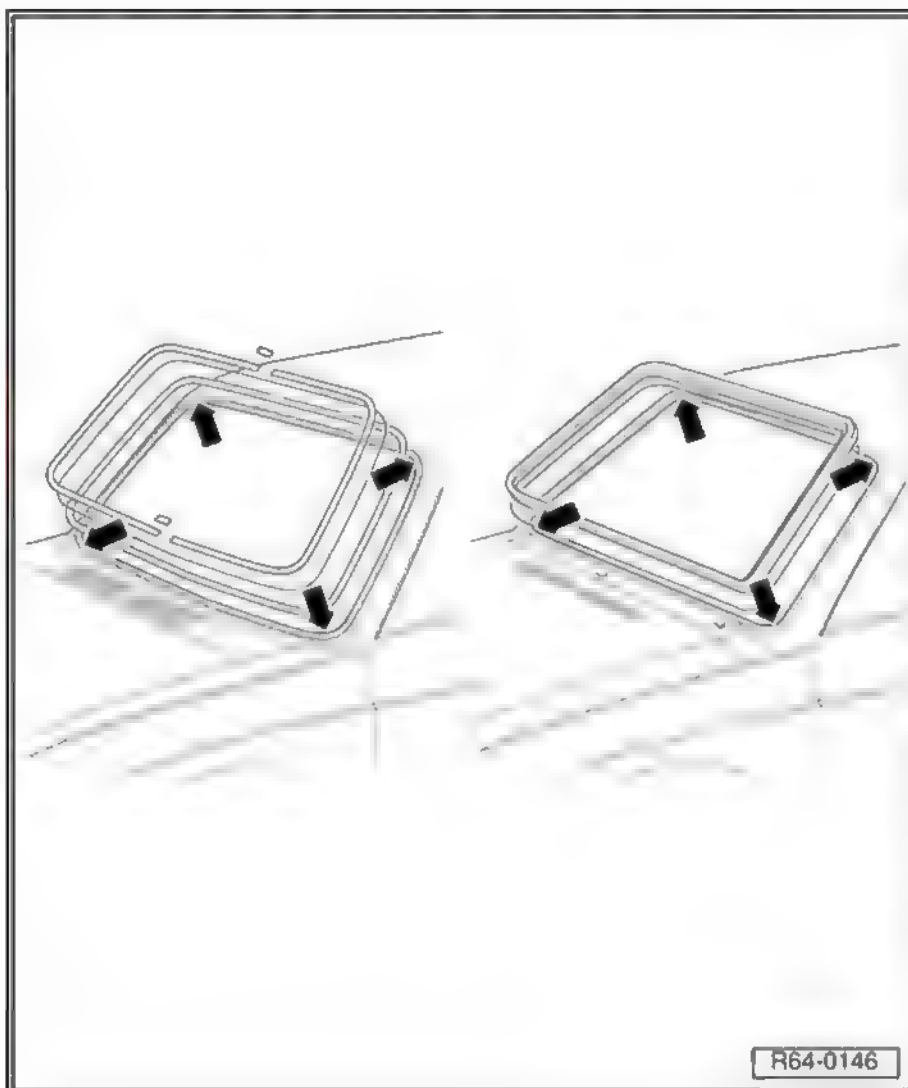
28.7 Windscreen, side window glass and rear window glass - seal

- All (except glued windows)

- Product used

- Sealing compound

➔ [page 11](#)





28.8 Glass - engrave chassis number

All

- Product used

- Corrosive paste ➔ [page 16](#)

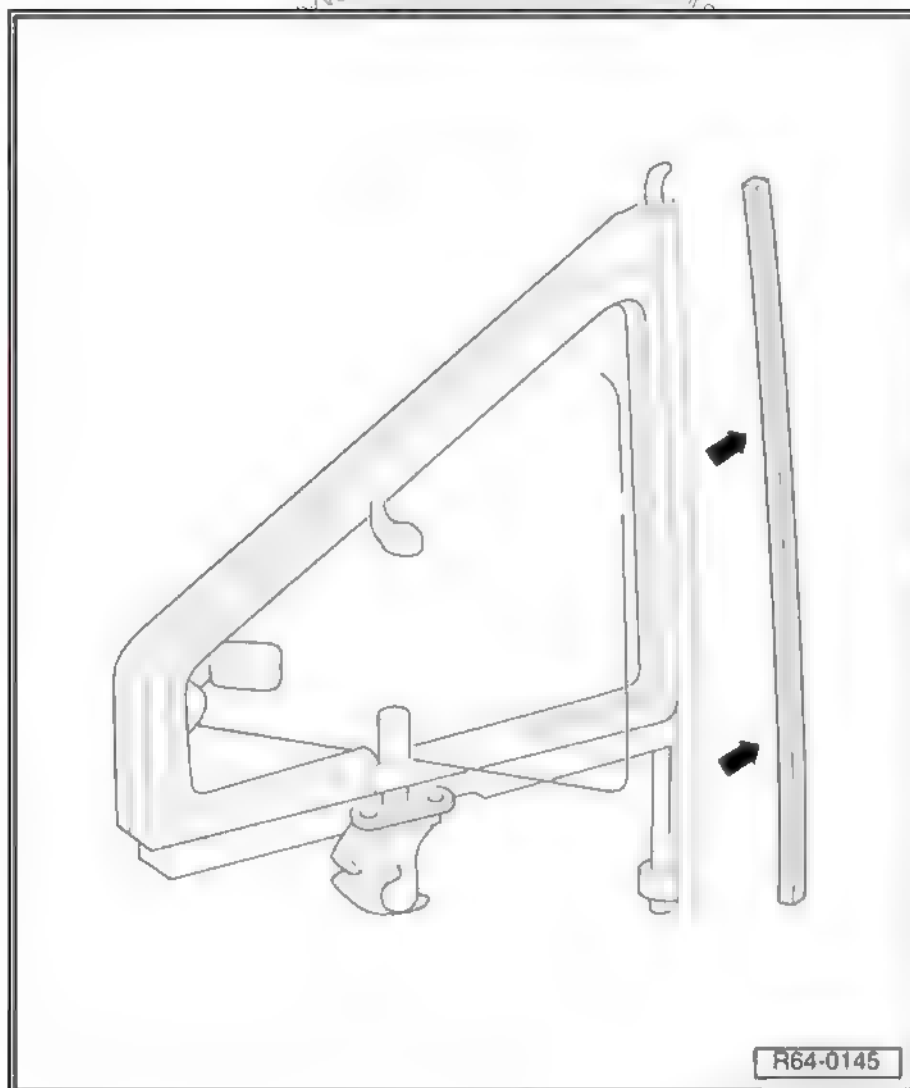
- ☐ The destructible labels - VIS are only supplied exclusively to the governmental traffic-related bodies (Detrans / Ciretrans) or Security bodies (Police Station). On the network portal, under "After sales", "Sist. Service info." in Circular no. 98/09 of 16/06/2009 "Engraving of the vehicle identification number (VIS) on the windows".





28.9 Front and rear door window guide groove - glue

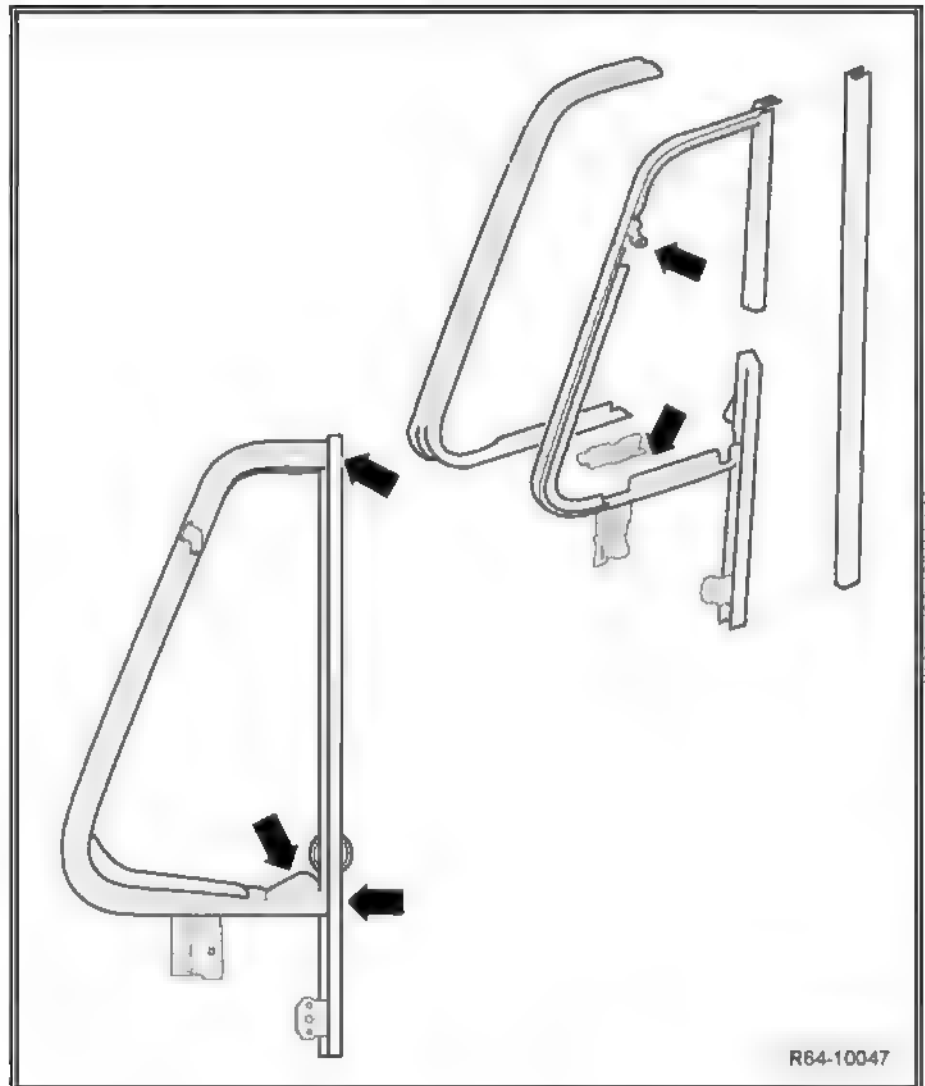
- Kombi
- Product used
- Adhesive for finishing and lining → [page 5](#)





28.10 Vent window - seal

- Kombi
- Product used
- Sealing compound
→ [page 11](#)
- -7X0 989 539-





29 Repair Group - 66 - External equipment



WARNING

Check the regulations on the disposal of each product and packaging as per manufacturer's guidelines and current legislation at local, state and federal level.

Observe the information in Chapter "Work Instructions for Handling Chemicals" ➔ [page 18](#)

29.1 Roof rack fastening screws - lock

- Santana, Quantum and Parati
- Product used
- Low viscosity lock adhesive
➔ [page 6](#)





30 Repair Group - 68 - Internal equipment



WARNING

Check the regulations on the disposal of each product and packaging as per manufacturer's guidelines and current legislation at local, state and federal level.

Observe the information in Chapter "Work Instructions for Handling Chemicals" → [page 18](#)

30.1 Interior rearview mirror support - fasten

- Santana

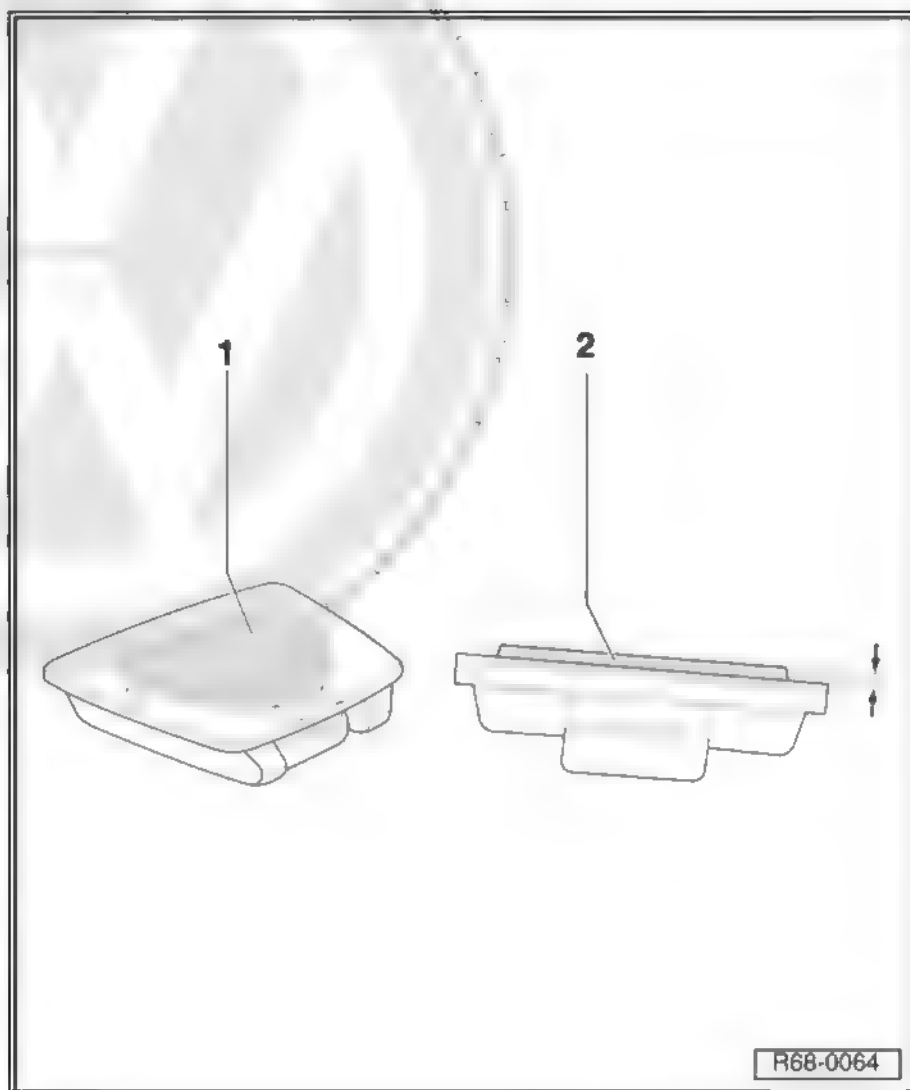
- Product used

- 2-component adhesive
→ [page 6](#)

- ❑ Before use mix 1 part of blue adhesive component with 1 part of the red component. Then, apply this mixture onto the interior mirror bracket (detail A), leaving a small protrusion of adhesive (not more than 0.5 mm) to ensure contact with the windscreen. Surfaces must be free of oil residues.

1 - Adhesive

2 - Adhesive applied in embossing





31 Repair Group - 70 - Lining/insulation



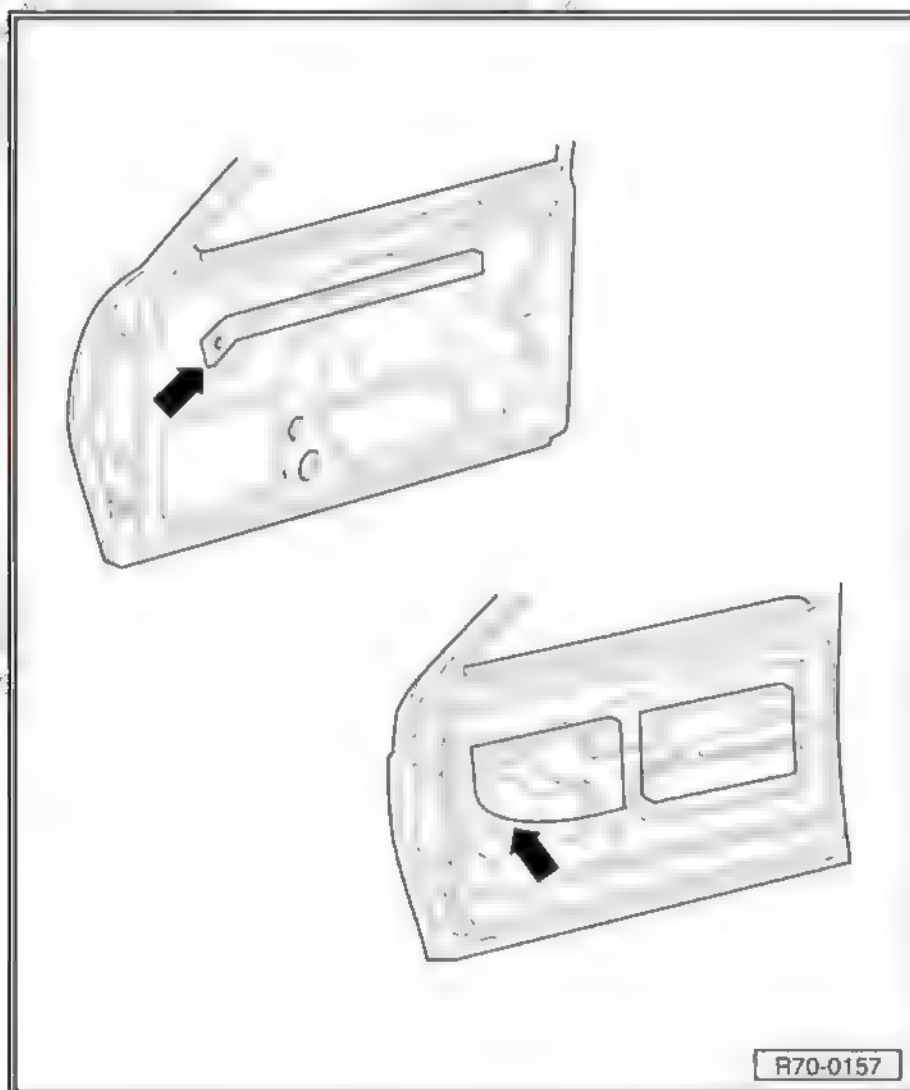
WARNING

Check the regulations on the disposal of each product and packaging as per manufacturer's guidelines and current legislation at local, state and federal level.

Observe the information in Chapter "Work Instructions for Handling Chemicals" ➔ [page 18](#)

31.1 Door noise insulation glue

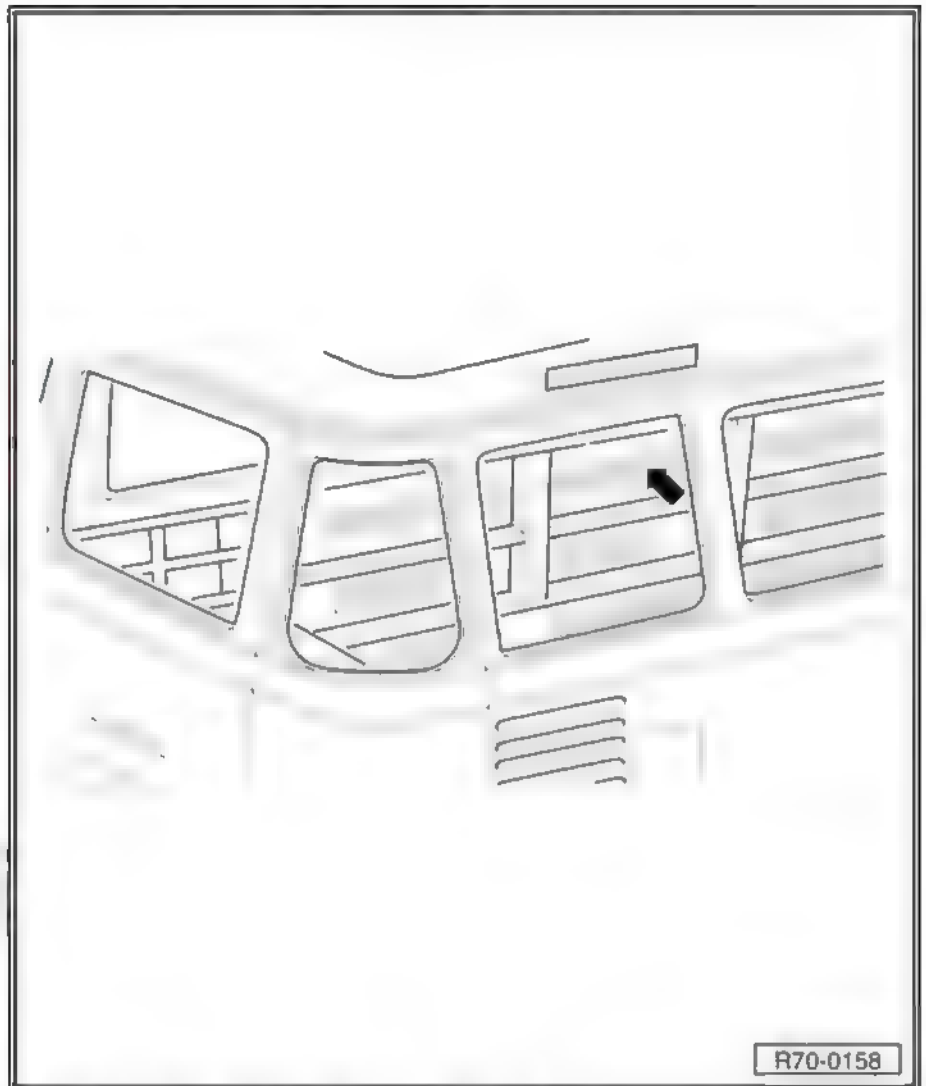
- All
- Product used
- Adhesive for finishing and lining ➔ [page 5](#)





31.2 Noise insulation on rear side panel - glue

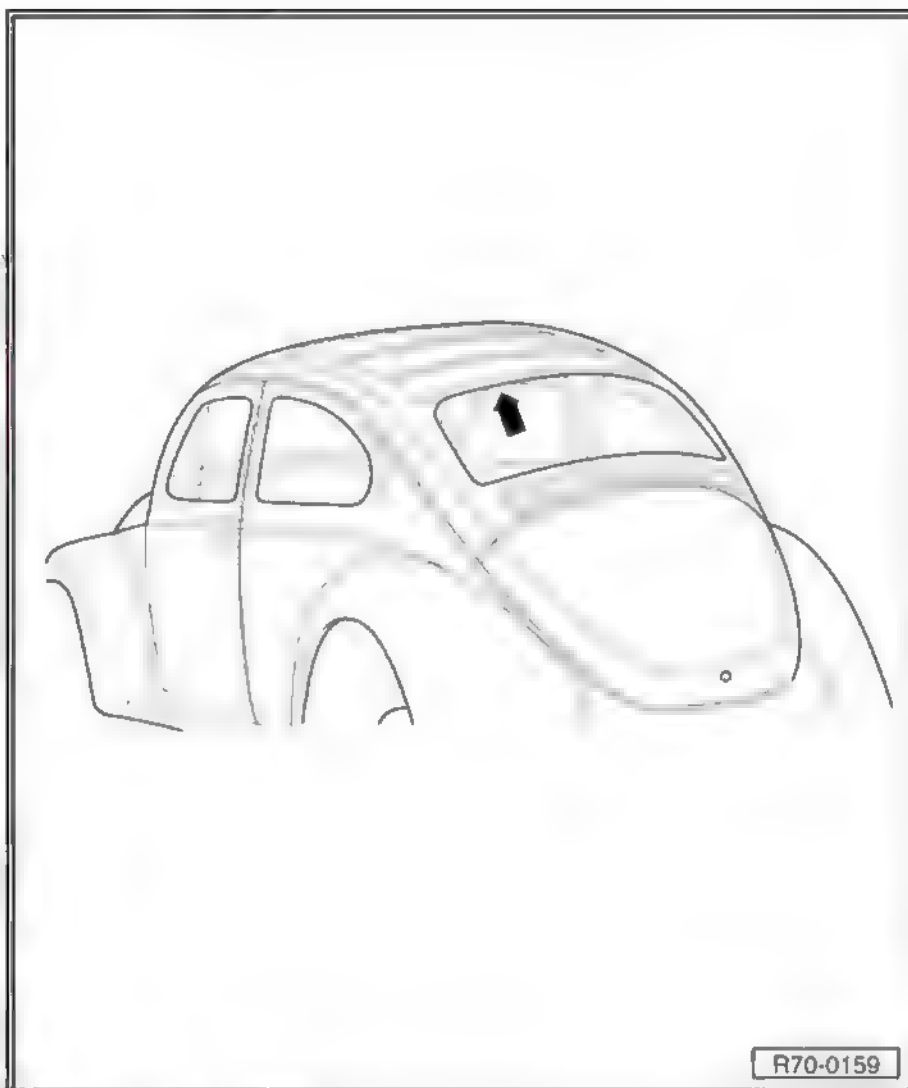
- All
- Product used
- Adhesive for finishing and lining ➔ [page 5](#)





31.3 Roof noise insulation - glue

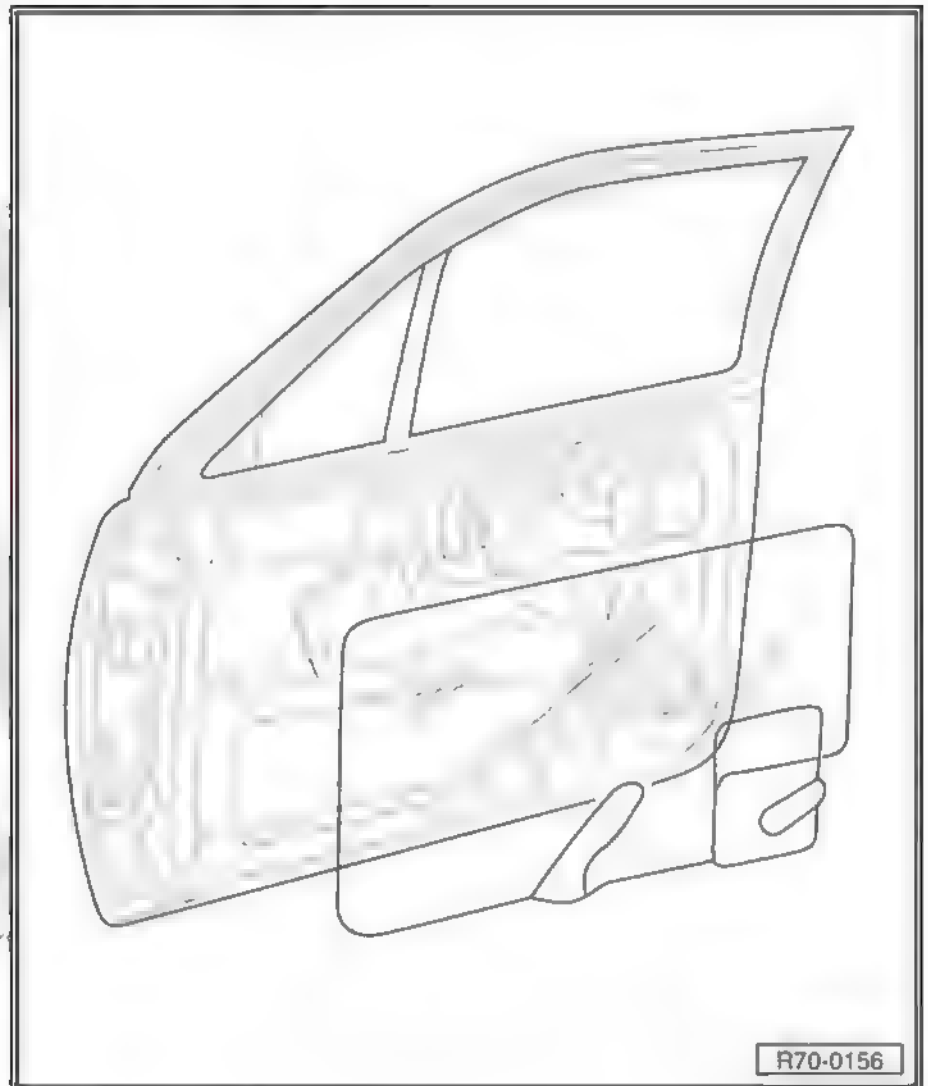
- All
- Product used
- Adhesive for finishing and lining → [page 5](#)





31.4 Door sealing membrane - glue

- All (except Golf and Polo)
- Product used
- Transferable adhesive tape
→ [page 7](#)





32 Repair Group - 72 - Seat framework



WARNING

Check the regulations on the disposal of each product and packaging as per manufacturer's guidelines and current legislation at local, state and federal level.

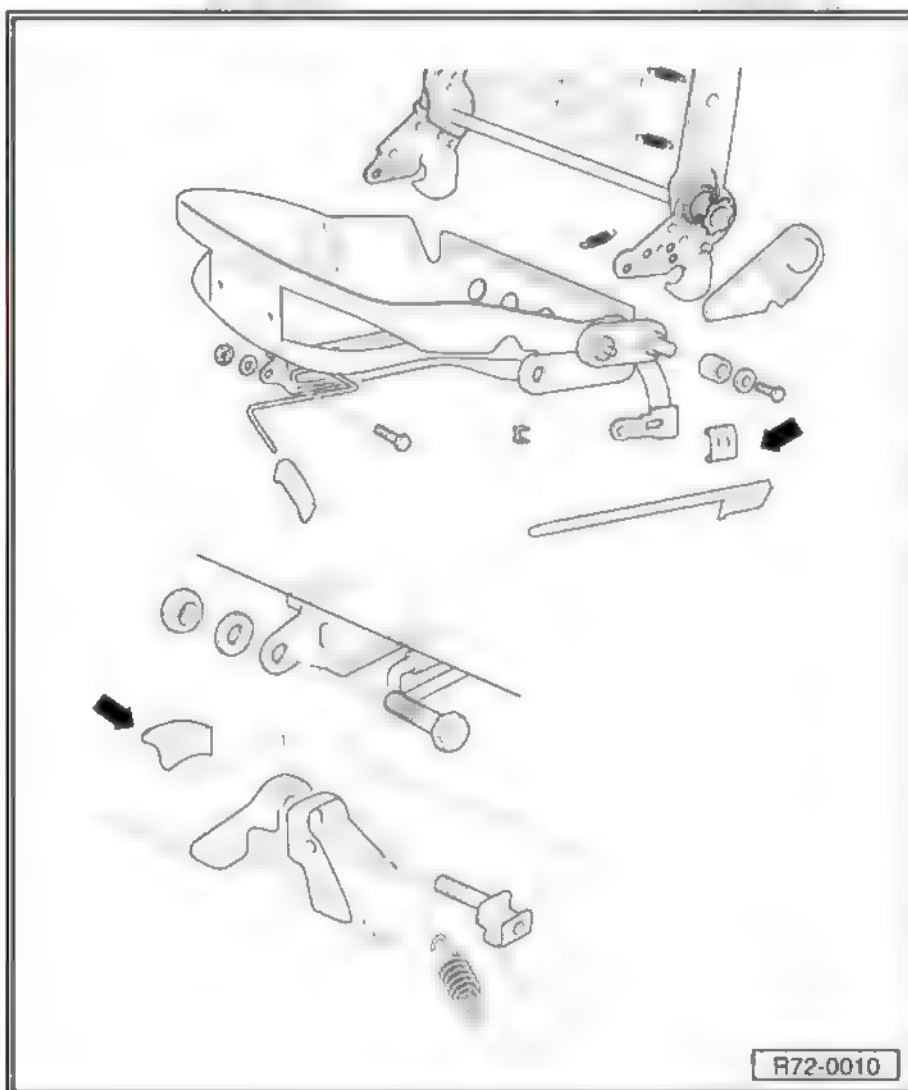
Observe the information in Chapter "Work Instructions for Handling Chemicals" ➔ [page 18](#)

32.1 Front seat central sliding guide - lubricate

- Gol, Parati, Saveiro and Santana

- Product used

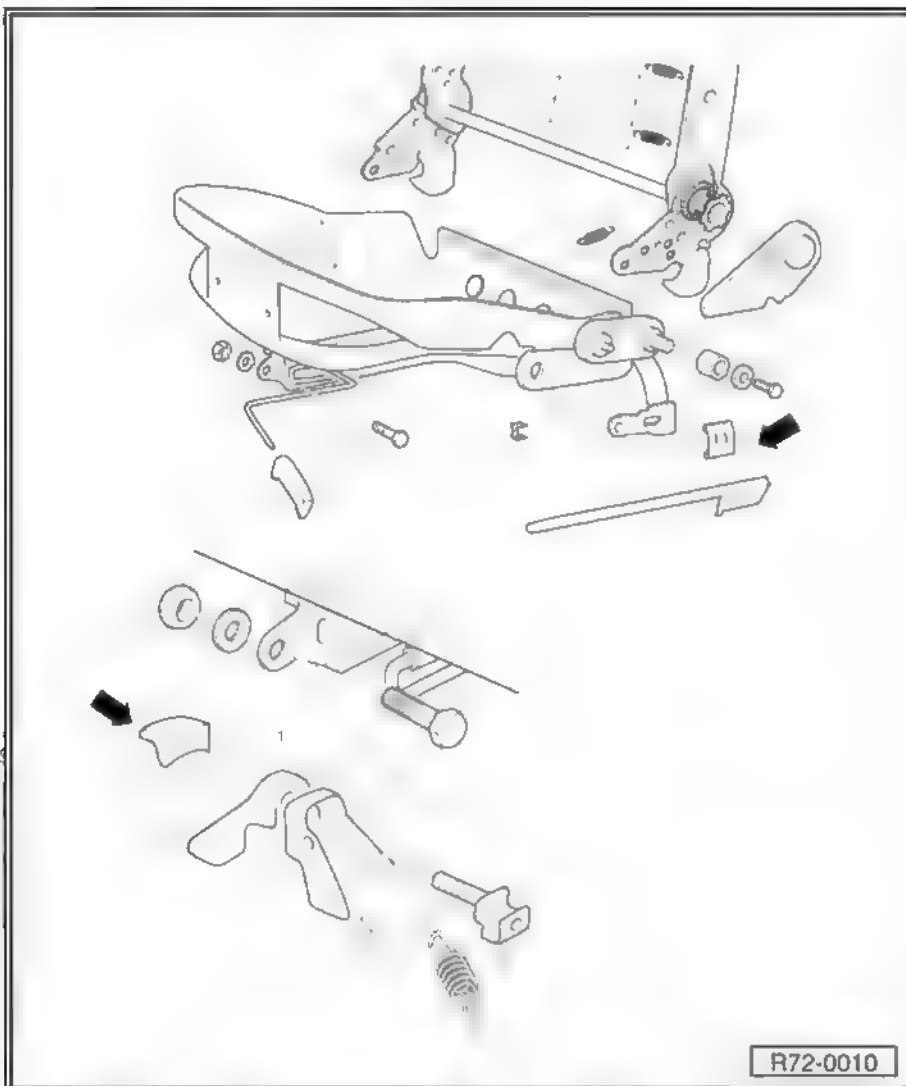
- Lubricating paste for constant velocity joints ➔ [page 11](#)





32.2 Front seat side sliding guide - lubricate

- Gol, Parati, Saveiro and Santana
- Product used
- Solid vaseline





33 Repair Group - 87 - Air conditioning



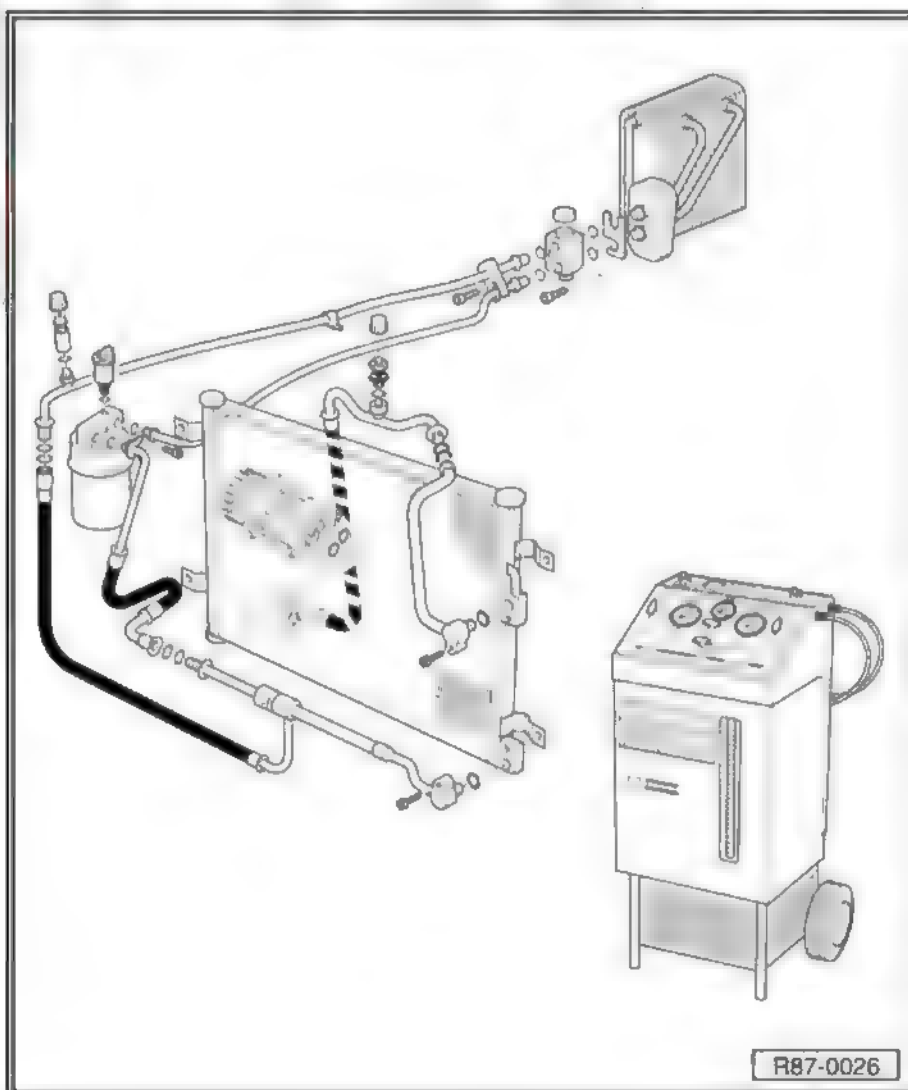
WARNING

Check the regulations on the disposal of each product and packaging as per manufacturer's guidelines and current legislation at local, state and federal level.

Observe the information in Chapter "Work Instructions for Handling Chemicals" ⇒ [page 18](#)

33.1 Air conditioning system - refill with gas

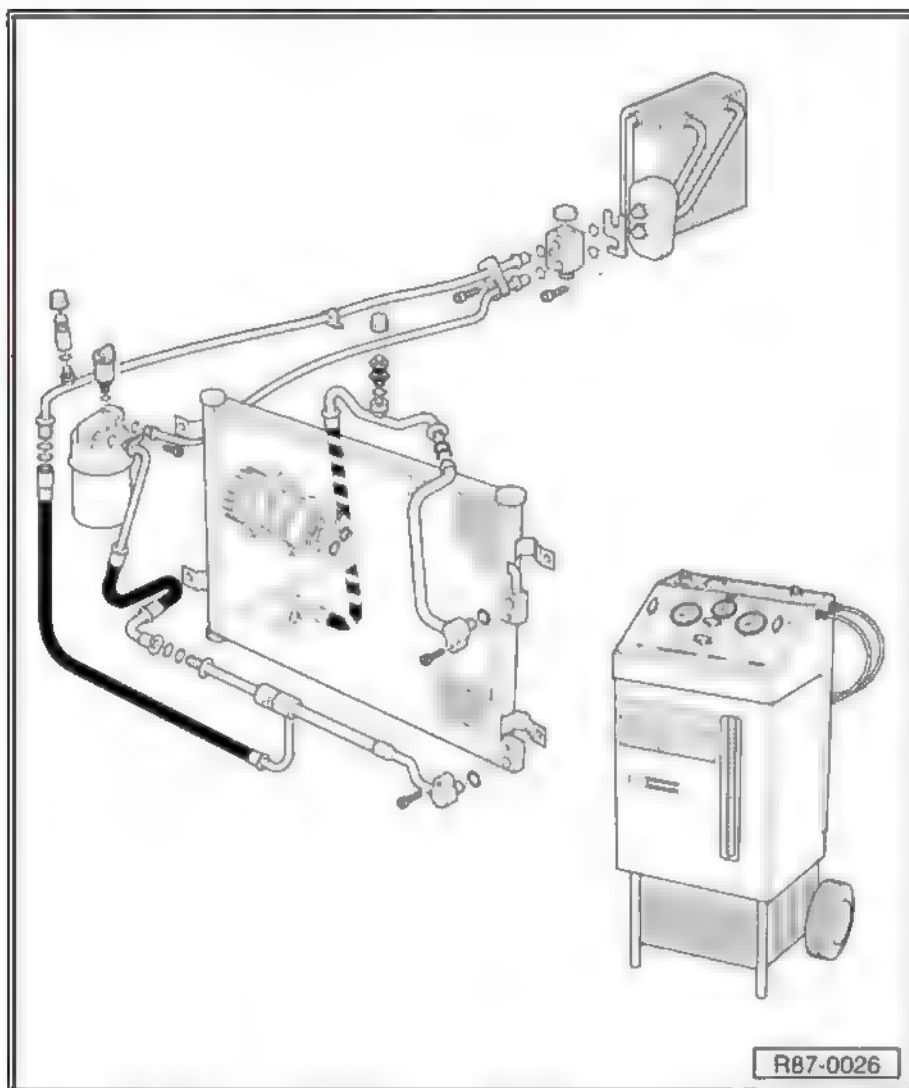
- All
- Product used
- Refrigerant gas ⇒ [page 8](#)





33.2 Air conditioning system - refill with oil

- All
- Product used
- Oil for the air conditioning compressor ➔ [page 15](#)



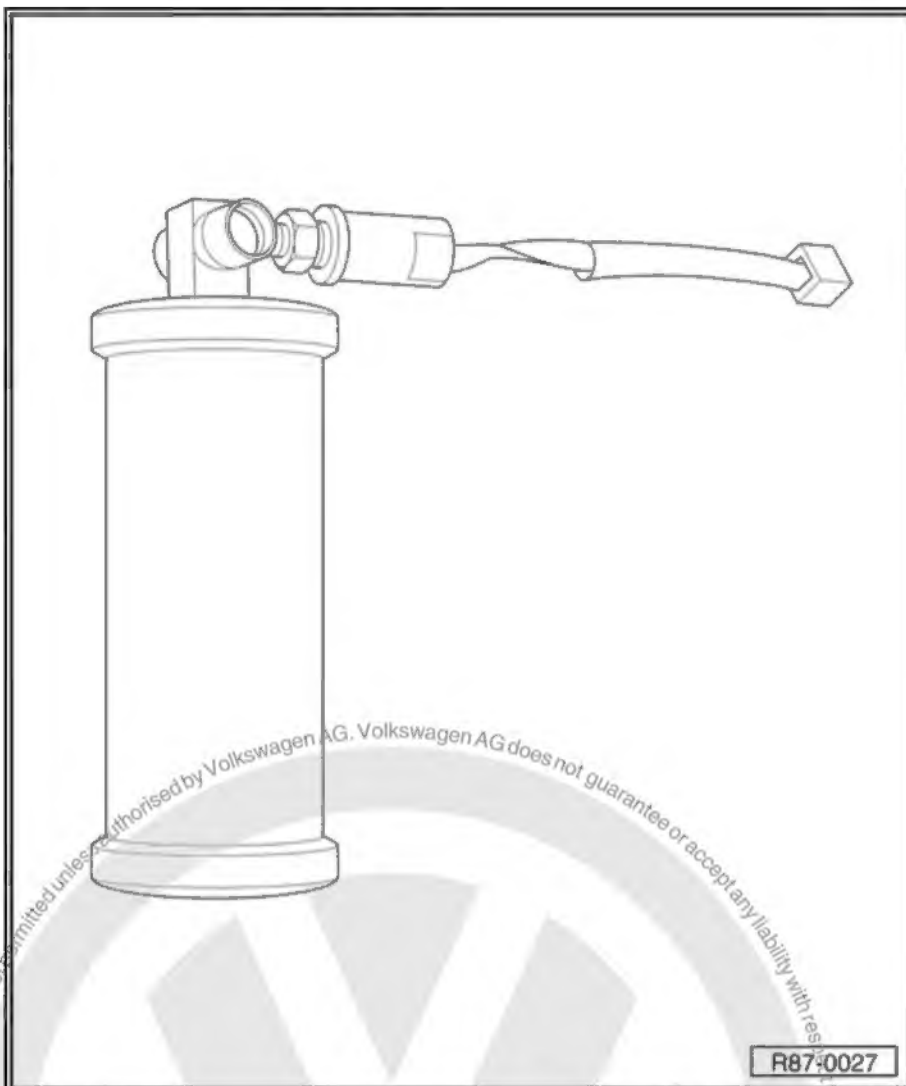


33.3 Air conditioning pressure switch - seal

- Gol, Parati, Saveiro and Santana

- Product used

- Medium torque locking adhesive



R87-0027



34 Repair Group - 92 - Windscreen, rear window and headlight wiper and washer



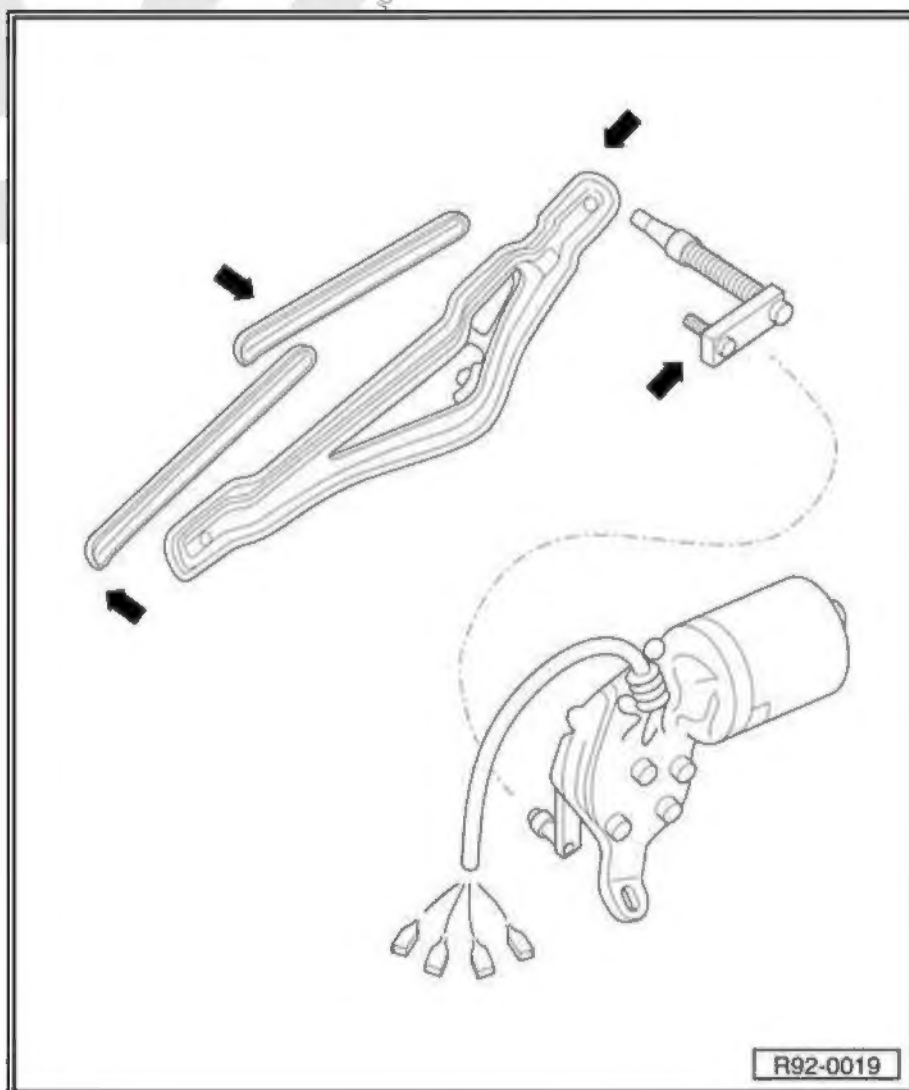
WARNING

Check the regulations on the disposal of each product and packaging as per manufacturer's guidelines and current legislation at local, state and federal level.

Observe the information in Chapter "Work Instructions for Handling Chemicals" ➤ [page 18](#)

34.1 Windscreen wiper operating rod - lubricate

- Kombi
- Authorized product
- Multi-purpose grease
➤ [page 8](#)





35 Repair Group - 94 - Switches, lights, and external bulbs



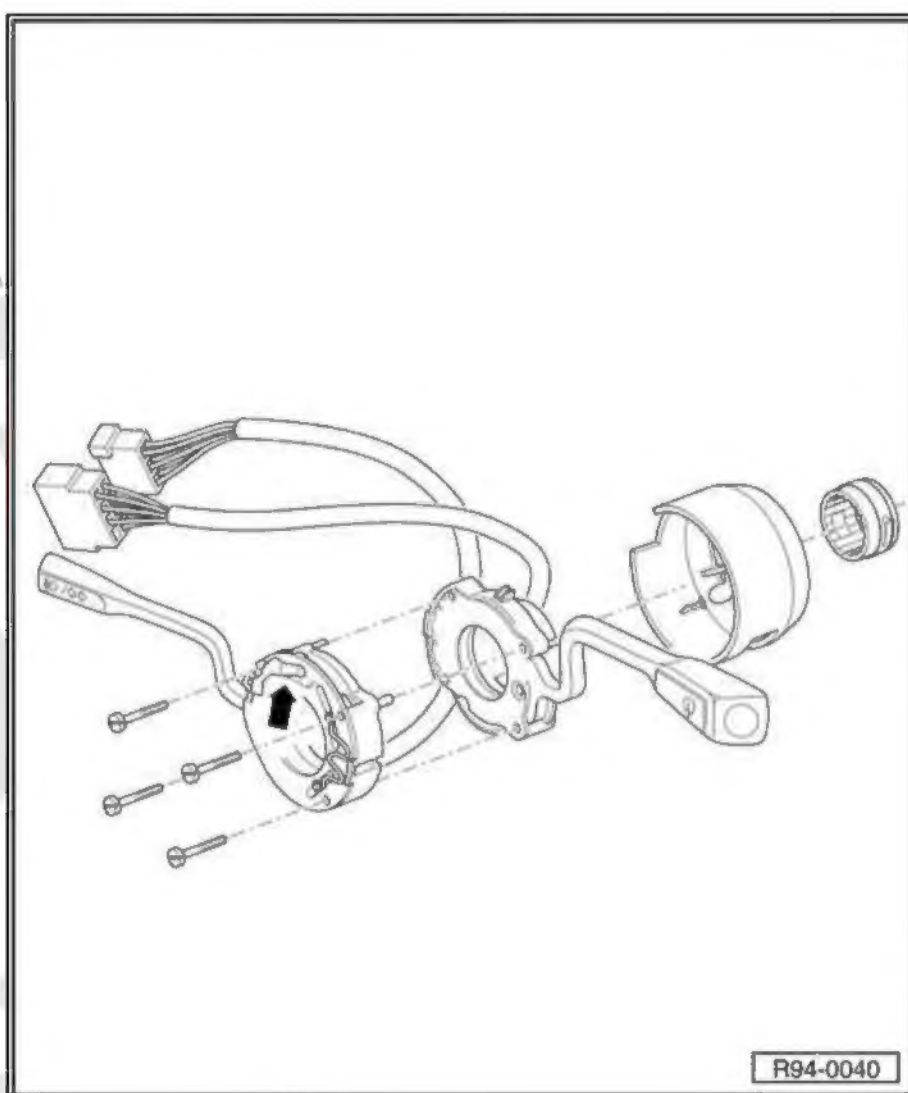
WARNING

Check the regulations on the disposal of each product and packaging as per manufacturer's guidelines and current legislation at local, state and federal level.

Observe the information in Chapter "Work Instructions for Handling Chemicals" ➔ [page 18](#)

35.1 Contact blade for turn signal switch

- All
- Authorized product
- Grease for electrical contacts
➔ [page 9](#)



Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by Volkswagen AG.



36 Repair Group - 97 - Cables and electrical harnesses



WARNING

Check the regulations on the disposal of each product and packaging as per manufacturer's guidelines and current legislation at local, state and federal level.

Observe the information in Chapter "Work Instructions for Handling Chemicals" ➔ [page 18](#)

36.1 Gaskets for the plastic covers that cover the electric harnesses - seal

- All
- Product used
- Adhesive for plastic cap gaskets

